

# **AN ESSENTIAL RESOURCE:**

## **An Analysis of the Economic Impact of Undocumented Workers on Business Activity in the US with Estimated Effects by State and by Industry**



*Prepared by*

### **The Perryman Group**

510 North Valley Mills Drive, Suite 300

Waco, Texas 76710-6076

Phone: 254.751.9595

Fax: 254.751.7855

E-Mail: [info@perrymangroup.com](mailto:info@perrymangroup.com)

Web Site: [www.perrymangroup.com](http://www.perrymangroup.com)

**APRIL 2008**

# **AN ESSENTIAL RESOURCE:**

## **An Analysis of the Economic Impact of Undocumented Workers on Business Activity in the US with Estimated Effects by State and by Industry**

### *TABLE OF CONTENTS*

<b>Introduction</b>	1
Overview	1
Highlights of Study Findings	5
The Perryman Group's Perspective	10
<b>The Issue of Immigration</b>	12
Current Size of the Immigrant Population	12
Characteristics of the Immigrant Population	14
<b>Recent Immigration Trends</b>	16
<b>Undocumented Immigration</b>	19
<b>Characteristics of Undocumented Families</b>	24
<b>Undocumented Workers</b>	27
Undocumented Workers Fill Needs	29
<b>Measuring the Impact of the Undocumented Workforce</b>	37
Methods Used	37
Estimated Undocumented Workforce by State	38
Initial Static Effects: US	39
Dynamic Effects: US	40
Industrial Effects	42
State-Level Effects	44
<b>A Public Policy Perspective</b>	51
<b>Conclusion</b>	53
<b>APPENDICES</b>	55
Appendix A: US Multi-Regional Impact Assessment System	56
Appendix B: Detailed Results	63

# **AN ESSENTIAL RESOURCE:** **An Analysis of the Economic Impact of Undocumented Workers on Business Activity in the US with Estimated Effects by State and by Industry**

## **Introduction**

### **Overview**

As the era of a plentiful workforce wanes and the “baby boomers” begin to approach retirement, the US economy has found numerous ways to sustain growth and prosperity. These approaches include massive investments in labor-saving technologies, strategies to keep more workers involved in the production process (such as job-sharing, working from home, providing daycare services in the workplace, and re-hiring retirees as consultants), and an increasing reliance on immigrants, both legal and undocumented. The rise in the number of undocumented residents that has accompanied these market adjustments has become a source a considerable controversy, often generating inflamed rhetoric and misinformation.

Strenuous debate continues over policies and implications of immigration, in particular the undocumented population. While some emphasize the value of a readily available workforce as the baby boomers begin to age and retire, others focus on costs including health care, education, and social services. There are many options available, but the current



approach which tacitly allows an ever growing number of undocumented entries and creates many social and market distortions must be addressed. Congressional action is required to craft a rational and sensible policy that fully addresses the realities of the modern US economy.

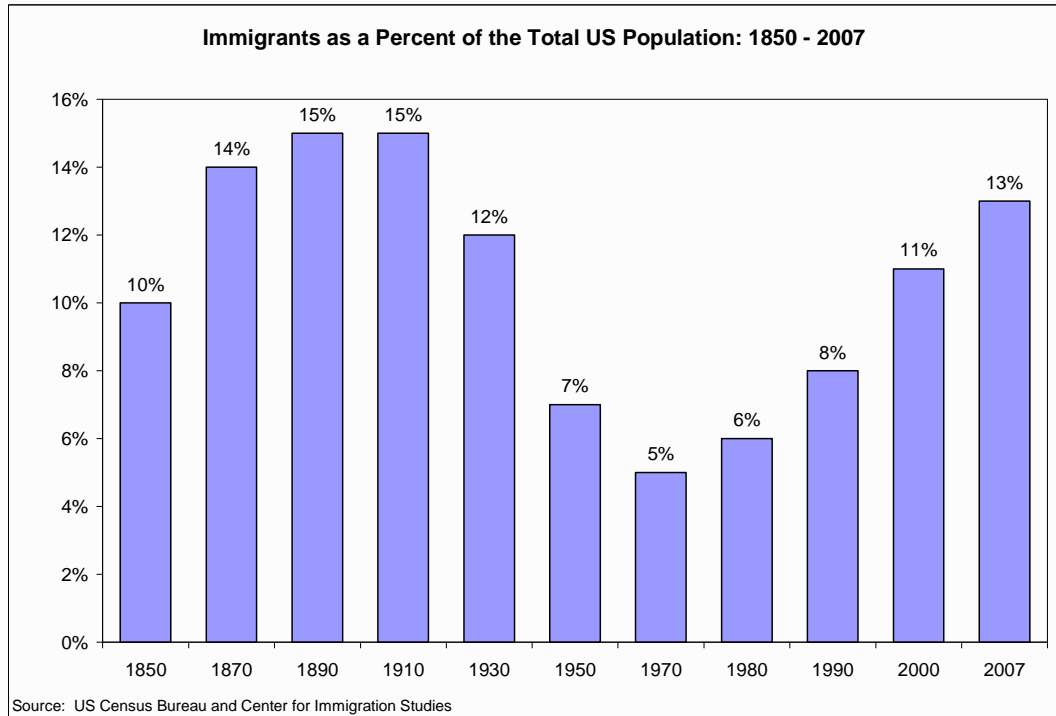
While there are numerous considerations surrounding this issue, it is clear that immigrants, both legal and undocumented, influence business activity in fundamental ways. Although the characteristics and importance of documented immigrants can be measured in a relatively straightforward manner, the impact of undocumented immigrants is more difficult to determine.

Immigrants have historically played a very large role in growth in the US population and economy. Even though public policy regarding new entrants has been altered several times over the years, and is certain to change again in the future, opportunities available in America continue to draw immigrants from around the world. Only during the Great Depression of the 1930s did the number of people leaving the United States exceed the number coming in.<sup>1</sup> A long-term historical view illustrates the role that immigration has played in the growth of the US population.

---

<sup>1</sup> "Three Decades of Mass Immigration: The Legacy of the 1965 Immigration Act," Center for Immigration Studies, Sept. 1995, p. 10-11.





Given the emotional nature of the immigration debate, the statistics emphasized and the conclusions drawn vary widely. In particular, the relative increase in the immigrant share of the overall population in the past few decades, the greater reliance on undocumented workers, and intense political attention have often camouflaged the underlying economic concerns. For example, many political and opinion leaders are presently advocating an **“enforcement-only”** strategy. Although the details vary, **such approaches typically involve (1) escalated construction of border fences and similar barriers; (2) a more aggressive border patrol program; (3) rapid deportations; (4) strict and rigorously enforced requirements for employers to determine immigration status and harsh penalties for hiring undocumented workers; and (5) no mechanisms to legalize the status of existing workers.** Others support a more moderate approach to immigration



reform which confronts the inescapable fact that the US is critically dependent on this workforce for sustainable prosperity..

The issues surrounding immigration are complicated (particularly in the case of the undocumented segment), ranging from security to tax policy to the provision of social services. By taking a balanced view of the economic costs and benefits, an estimate of the component of business activity that is directly tied to the undocumented workforce can be derived.

In this study, The Perryman Group (TPG) considered factors such as

- the likely numbers of undocumented workers by state,
- concentration of undocumented workers by industry,
- dynamic adjustments that would be set in motion by a major change in immigration policy,
- spillover effects as various supply chains and payrolls are affected, and
- relative differentials in skill levels and compensation associated with undocumented workers.

The analysis uses appropriate modeling techniques to provide an assessment of the magnitude of the impact of the undocumented workforce as well as the economic dependency of various areas and sectors on this source of labor. It also permits an evaluation of both the initial “snapshot” (or static) effects of removing these workers as well as a dynamic view of the emerging patterns over time. Through such a process, information can be gleaned which facilitates a more reasonable discussion of policy options and priorities within a practical economic context.



The development of immigration policy affects not only national security and other priorities, but also the economy. Overly restrictive policy has the potential to devastate certain industries which would be faced with near crisis conditions in terms of affordable labor. In fact, millions of jobs are at stake, and the spillover effects would ripple through every sector of the economy and every region of the country. While a national reform initiative is imperative, it must be cognizant of the potential economic fallout in order to avoid unnecessary disruptions, dislocations, and unintended consequences.

### Highlights of Study Findings

Highlights of the key findings from this study are presented below.

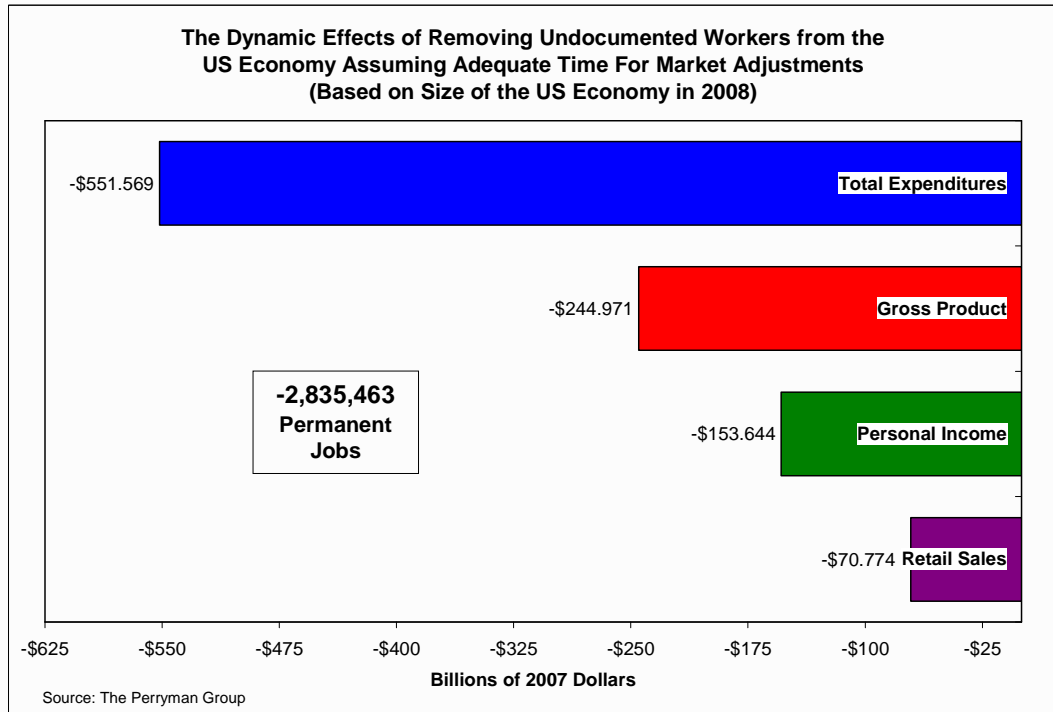
- The latest Census data indicates that **1 of every 8 people living in the US is an immigrant, with approximately one-third of them being undocumented.**
- Estimates performed by The Perryman Group as a part of this study indicate that **there are currently approximately 8.1 million undocumented workers in the US economy.** If these workers were removed from the workforce, the effects would ripple through many industries and the ultimate job losses would be even higher.
- **Undocumented immigrants comprise a large component of the workforce in some industries and geographic areas.** In 10 states, the percentage of undocumented workers as a share of the workforce equals or exceeds the national average of 5%. Arizona has the highest proportion with 12%.



- The Perryman Group measured losses if the undocumented workforce is removed for a static scenario (reflecting the immediate losses that would be associated with an enforcement-only type of program) and dynamic scenario (reflecting losses after time for market adjustments such as changing production processes and raising wage rates to attract additional workers). Provisions for accepting those already in the system would allow for meaningful reform without the massive negative effects that would accompany more reactionary policy options.
- For the US as a whole, **the immediate negative effect of eliminating the undocumented workforce would include** an estimated
  - **\$1.757 trillion** in annual lost spending,
  - **\$651.511 billion** in annual lost output, and
  - **8.1 million lost jobs.**
- Even after the economy had time to make market adjustments (which could only fully occur if some provisions for additional entry were available), the foregone economic activity would be sizable, as noted in the following graph.







- **Several states lose a notable percentage of business activity if the undocumented workforce is removed.** These states naturally include several along the US-Mexico border, but also others scattered around the country.
- Per-capita losses in a number of states include thousands of dollars in annual economic activity.

<b>Selected Measures of Per-Capita Losses in Business Activity Among States with the Greatest Relative Dependence on Undocumented Workers</b>						
	<b>Static Scenario</b>			<b>Dynamic Scenario</b>		
<b>State</b>	<b>Expenditures losses per capita</b>	<b>Output losses per capita</b>	<b>Income losses per capita</b>	<b>Expenditures losses per capita</b>	<b>Output losses per capita</b>	<b>Income losses per capita</b>
California	\$14,314	\$5,306	\$3,415	\$4,492	\$1,995	\$1,251
Arizona	\$13,255	\$4,914	\$3,162	\$4,160	\$1,848	\$1,159
Nevada	\$12,002	\$4,449	\$2,863	\$3,767	\$1,673	\$1,049
Texas	\$9,231	\$3,422	\$2,202	\$2,897	\$1,287	\$807
New Jersey	\$8,873	\$3,289	\$2,117	\$2,785	\$1,237	\$776
Maryland	\$8,688	\$3,221	\$2,073	\$2,727	\$1,211	\$760
Florida	\$7,663	\$2,841	\$1,828	\$2,405	\$1,068	\$670
Washington	\$7,143	\$2,648	\$1,704	\$2,242	\$996	\$624
Georgia	\$7,120	\$2,639	\$1,699	\$2,234	\$992	\$622
Illinois	\$6,356	\$2,356	\$1,516	\$1,995	\$886	\$556
<b>US</b>	<b>\$5,827</b>	<b>\$2,160</b>	<b>\$1,390</b>	<b>\$1,829</b>	<b>\$812</b>	<b>\$509</b>

Note: All monetary values in 2007 dollars.

- **Certain industries are especially dependent on the undocumented workforce and would be particularly hard hit if it were removed. In fact, for the agriculture and construction sectors, the initial effects would be extremely disruptive.**
- **If an “enforcement-only” strategy is fully implemented, it would effectively eliminate the undocumented workforce and, thus, quickly lead to a situation much like that portrayed in the static analysis. Moreover, if there were no contemporaneous adjustments to provide for some level of entry, it would be difficult to accomplish the adjustments embodied in the dynamic results.**
- It is also important to make explicit efforts to accommodate existing workers within a more cohesive and orderly system. This approach will enhance efficiency and help to reduce the practice of treating undocumented laborers as “independent contractors.” This



practice has adverse fiscal consequences and places businesses which seek to operate in a legitimate and lawful manner at a competitive disadvantage.

- There is clear evidence that **undocumented workers are currently making contributions to the US economy and society**, especially in certain industries and occupations.
- **If all undocumented workers were removed from the workforce, a number of industries would face substantial shortages of workers, and Americans would have to be induced into the labor pool or provided incentives to take jobs far below their current education and skill levels.<sup>2</sup> For this phenomenon to occur to a meaningful extent, substantial wage escalation would likely be necessary, thus eroding competitiveness in global markets.**
- **As the domestic workforce becomes older, more stable in number, and better educated, the US production complex increasingly requires foreign, low-skilled workers.** In 1960, about 50% of men in this country joined the low-skilled labor force without completing high school; the number is now less than 10%. Shortages in the low-skilled labor force are likely to continue to escalate.
- Available evidence suggests that **undocumented workers pay far more in overall taxes than they receive in benefits from various governments.<sup>3</sup>** However, many (but not all) state and local public entities experience a net deficit resulting from the specific services they offer (education, health care, law

---

<sup>2</sup> Jaeger, David A., PhD, "Replacing the Undocumented Work Force," Center for American Progress, March 2006; "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006; "The Impact of the Undocumented Workforce on Business Activity in Texas," The Perryman Group, February 2007.

<sup>3</sup> "Undocumented Immigrants as Taxpayers," Immigration Policy Center, Nov. 2007.



enforcement, etc.) relative to their principle sources of revenues.<sup>4</sup> Thus, there is a legitimate policy debate regarding the proper distribution of the taxes paid by undocumented workers.

- **It is imperative that any rational policy recognize the basic and inescapable reality that the resource represented by undocumented workers is an absolutely essential element of the modern US economy.**

### The Perryman Group's Perspective

The Perryman Group is an economic research and analysis firm located in Waco, Texas. TPG has been involved in hundreds of impact analyses and labor market studies over the past 25 years, including many related to the workforce needs of specific sectors and regions and others related to issues of international trade and production.

TPG is uniquely qualified to conduct this analysis. Dr. M. Ray Perryman, the founder and president of the firm, developed the US Multi-Regional Impact Assessment System (USMRIAS) and has consistently maintained, expanded, and updated it for more than 20 years. This model has been used in hundreds of significant and innovative studies over an extended period, and enjoys an excellent reputation for the reliability of its findings.

The key underlying models used in this analysis were developed in the early 1980s, and have been maintained and updated since that time. Among the many studies the firm has conducted related to international

---

<sup>4</sup> "The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments," Congressional Budget Office, Dec. 2007.



activity are (1) several transportation analyses for US-Mexico corridors, (2) an assessment of cross-border maquiladora impacts, (3) a multi-state evaluation of the effects of inefficiencies in border crossings and changes in policy, (4) an empirical investigation of net gains from the North American Free Trade Agreement, (5) a prior measurement of the impact of the undocumented workforce in Texas, and (6) a quantification of the overall consequences of global trade on various regional economies.

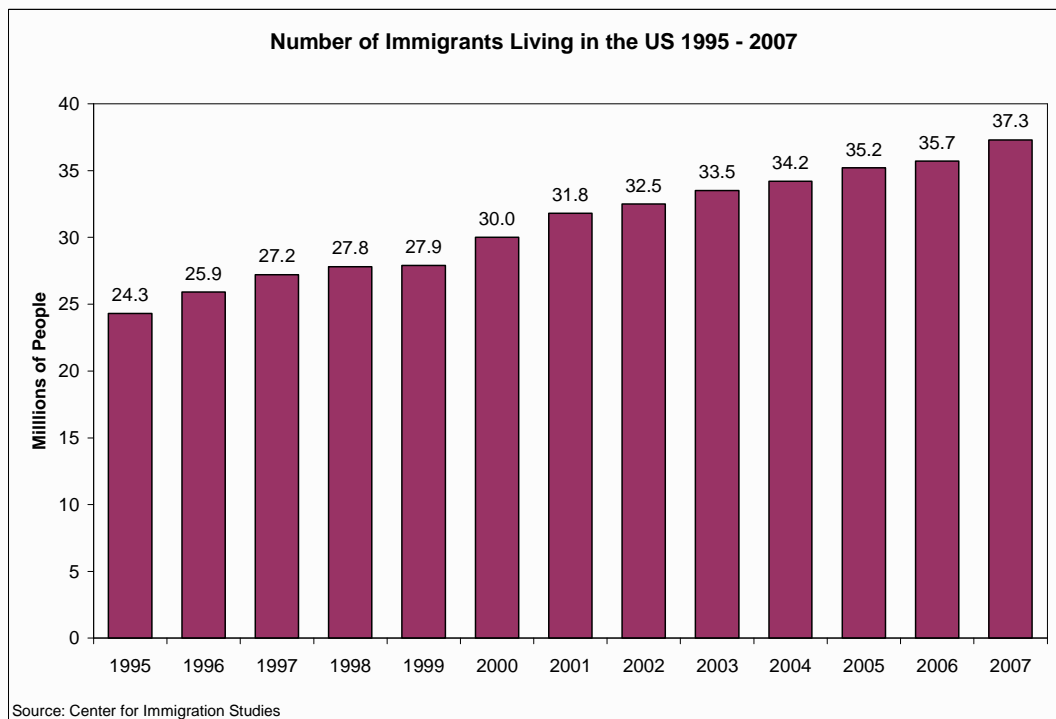


## The Issue of Immigration

The issue of the undocumented workforce is inextricably linked to the larger question of immigration in general. This section highlights recent immigration trends.

### Current Size of the Immigrant Population

The latest Census information indicates that 1 of every 8 people living in the US is an immigrant. The total has risen quickly over the past decade, up by more than 10 million since 2000<sup>5</sup> to reach over 37 million nationwide.<sup>6</sup>



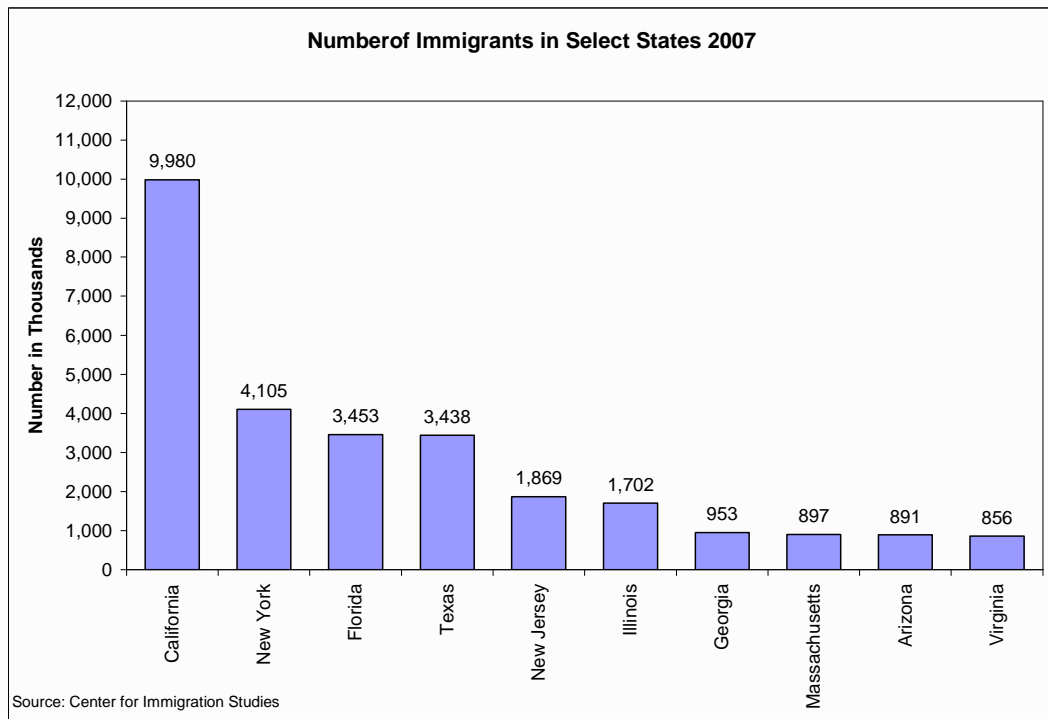
<sup>5</sup> "Immigrants, Illegals Use Welfare More Often," [washingtontimes.com](http://washingtontimes.com), Nov. 29, 2007, p. 2.

<sup>6</sup> "Analysis Finds Immigration at Record Level," [nytimes.com](http://nytimes.com), Nov. 29, 2007.



Overall, immigrants comprise 12.6% of the US population, with some states having a much higher percentage of immigrants than others. Continuing historical patterns, California, New York, and New Jersey are the states with the highest percentages of immigrants. California and New York also lead in terms of the greatest number of immigrants.<sup>7</sup>

In 1990, nearly 75% of the total foreign-born and 90% of undocumented immigrants lived in California, Florida, Illinois, New Jersey, New York, and Texas.<sup>8</sup> However, in more recent years, the concentration of the foreign-born population has begun to settle in states not traditionally thought of as immigrant destinations.<sup>9</sup>



<sup>7</sup> “Backgrounder: Immigrants in the United States, 2007,” Center for Immigration Studies, Nov. 2007, p. 4, 6.

<sup>8</sup> “The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments,” Congressional Budget Office, Dec. 2007, p. 4-5.

<sup>9</sup> “The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments,” Congressional Budget Office, Dec. 2007, p. 5.



## Characteristics of the Immigrant Population

As noted, one concern among those advocating substantial reforms is that immigrants tend to rely more heavily on social services than the native-born population. It should be noted, however, that eligibility restrictions for undocumented immigrants prevent them from enrolling for most programs. It is true that almost 33% of immigrant households use a major welfare program, significantly higher than the 19% of native-born families nationwide, but most of those are not from the undocumented population (which is generally only eligible for public education and emergency medical services).<sup>10</sup>

Overall, immigrants are employed at a higher rate than the native-born population but tend to earn less. For households headed by immigrants, 2007 median household income was \$43,933, which is 89% of native-born household average income (\$49,201). Furthermore, immigrant households were on average 28% larger than native households (3.1 persons compared to 2.4 persons) resulting in an even lower per-capita median income for immigrants.<sup>11</sup>

A large proportion of immigrants hold lesser-skilled jobs due to lower average education levels. Of adult immigrants, 29% do not have a high school diploma compared to only 8% of the native-born population.<sup>12</sup> An even higher percentage of those who have arrived since 2000 (36%) do not have a high school education. However, it is important to mention that immigrants offer much to our highly educated population as well. Data indicate that **while many have less than a high school education,**

<sup>10</sup> "Immigrants, Illegals Use Welfare More Often," *washingtontimes.com*, Nov. 29, 2007, p. 2.

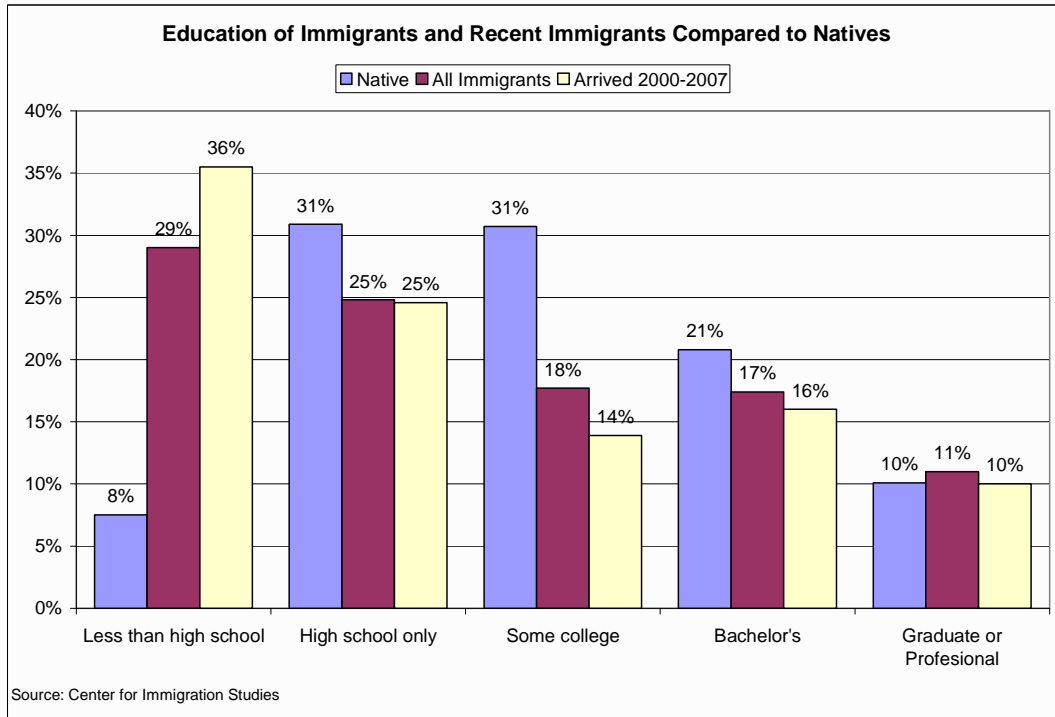
<sup>11</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 10.

<sup>12</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 9.



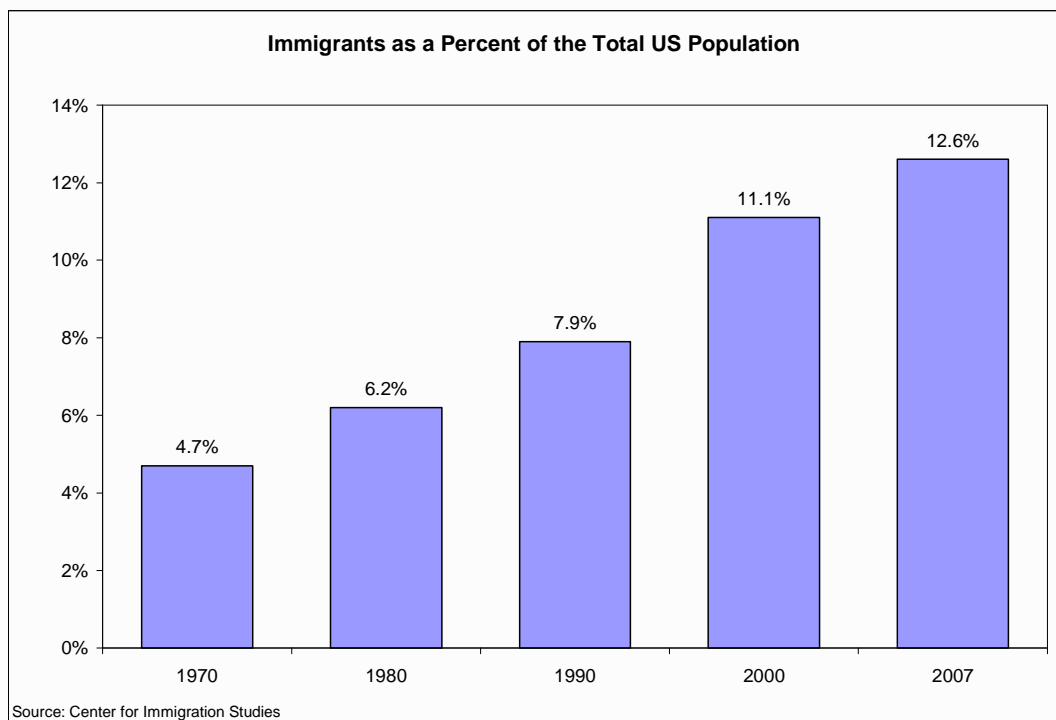


about the same percentage of immigrants and natives hold graduate or professional degrees, thus contributing to professional and high-tech industries and health care delivery.



## Recent Immigration Trends

The percentage of immigrants in the US population has fluctuated over the years, yet it has steadily increased during the past three decades. As noted, immigrants currently comprise 12.6% of the population, a significant increase from the 1970s and 1980s. **While still low by the historical standards of an earlier era, the current pattern is definitely upward.**<sup>13</sup> This shift is partially a legacy of the 1965 Immigration Act, which phased out the national origins quota system put into effect in the early 1920s and opened the door wider for immigration into the US.<sup>14</sup>



<sup>13</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 4.

<sup>14</sup> "Three Decades of Mass Immigration," Center for Immigration Studies, Sept. 1995, p. 1



In addition to the influx of immigrants in recent years, the composition of the countries of origin of immigrants has changed over time. Most immigrants in the early 1900s (85%) came from European countries, with only 1.3% from Latin America and 1.2% from Asia. By the 1990s, only 22% came from European countries, with 42.5% from Latin America, and 25.2% from Asia.<sup>15</sup> The percentage of immigrants born in Latin America continues to trend upward. Nearly 59% of immigrants entering the US post-2000 have come from Latin America, while only 9% have come from Europe. The percent of Asians post-2000 is about the same as in the 1990s (24%).

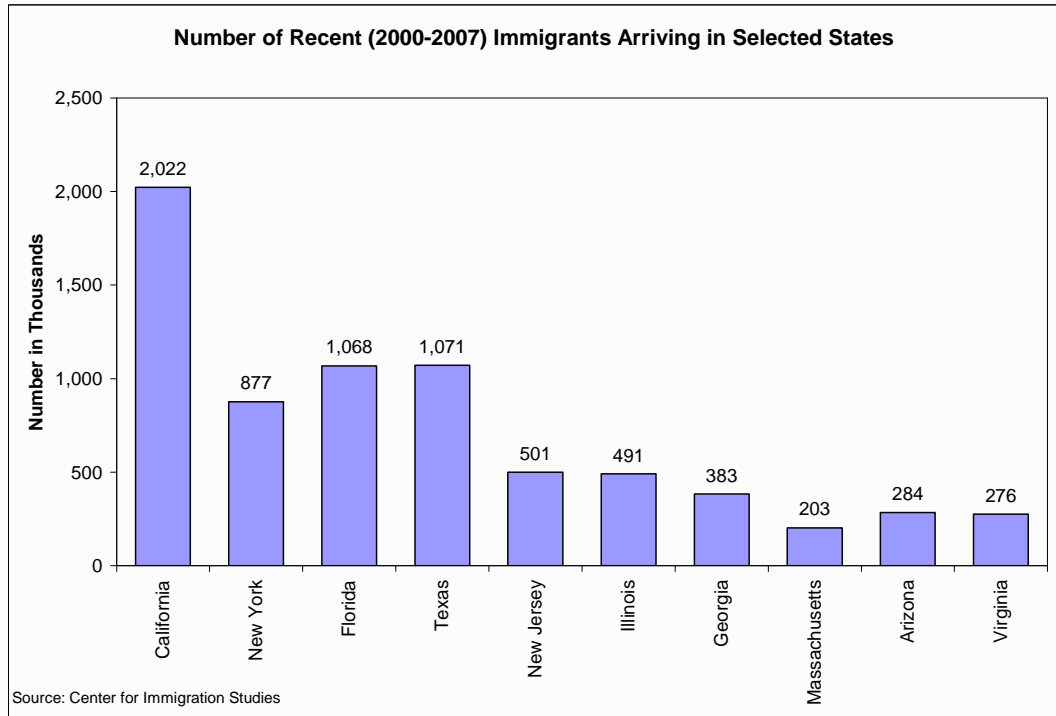
Focusing on individual states, New York and New Jersey lead in the percentage of the population that is immigrant. California clearly has the highest number of immigrants in this decade, with Texas and Florida receiving large numbers as well.<sup>16</sup>

---

<sup>15</sup> "We, the American...Foreign Born," US Department of Commerce, Sept. 1993, p. 2.

<sup>16</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 6.





Another way of looking at recent immigrant migration is to look at the rate of growth in the immigrant population. Of the states with high numbers of immigrants entering between 2000 and 2007, the fastest growth rate was in Georgia where the immigrant population grew by 152% between 2000 and 2007. California, the state receiving the greatest number of immigrants, grew by 10.2%, Florida by 16.7%, and Texas by 32.7%.<sup>17</sup>

<sup>17</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 9.



## Undocumented Immigration

Within the context of the large and growing immigrant population lies the issue of undocumented immigration. Undocumented immigrants comprise a large component of the workforce in some industries and geographic areas. Debate as to the costs and benefits of these undocumented residents is heated.

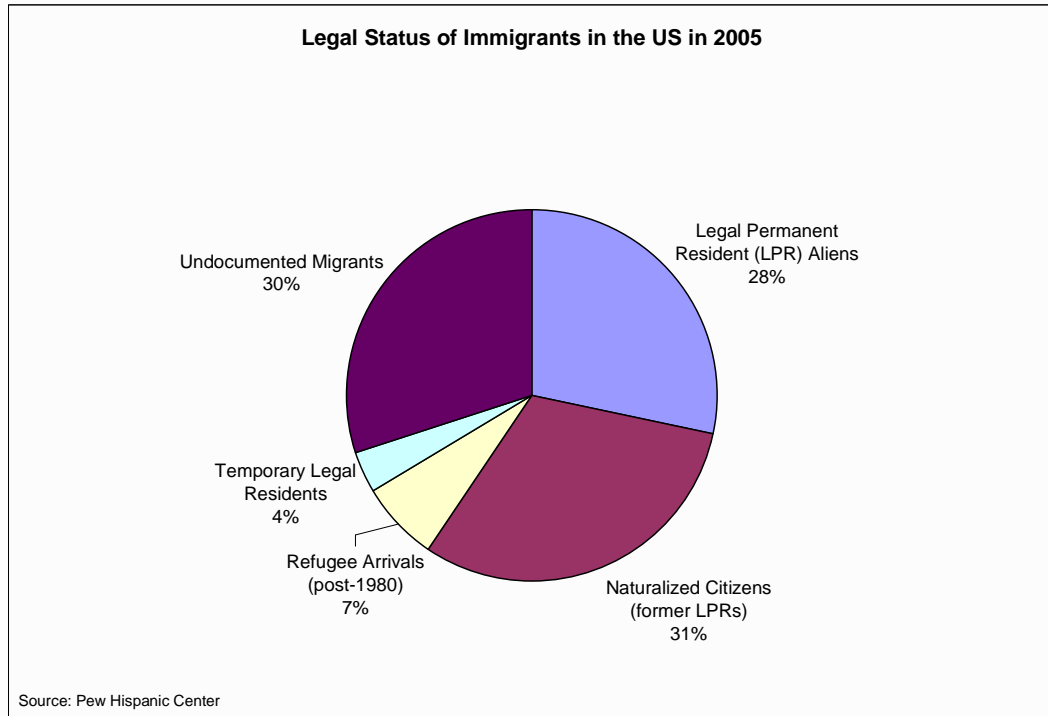
This study seeks to measure the economic effect of the undocumented workforce on all aspects of the economy, including aggregate expenditures, output (gross product), personal income, employment, and retail sales. The findings are presented on both a detailed industrial basis and by state. Discussion is also provided of the fiscal effects on federal, state, and local governments. The findings are offered on both a static and a dynamic basis which adjusts for the anticipated market responses associated with a major change in immigration policy.

**While the undocumented population is harder to study, estimates indicate that about one-third of the foreign-born population now living in the US is undocumented.**<sup>18</sup> The 2005 Current Population Survey (CPS) data maintained by the US Census Bureau indicates the undocumented migrant population for the US is roughly 11.1 million (estimates range between 10.7 and 11.5); although based on the pace of growth in the foreign-born population, the Pew Hispanic Center estimates that to have increased to 11.5 to 12.0 million in 2006.<sup>19</sup>

<sup>18</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 1.

<sup>19</sup> "Fact Sheet: Estimates of Unauthorized Migrant Population for States based on March 2005 CPS," Pew Hispanic Center, April 26, 2006.



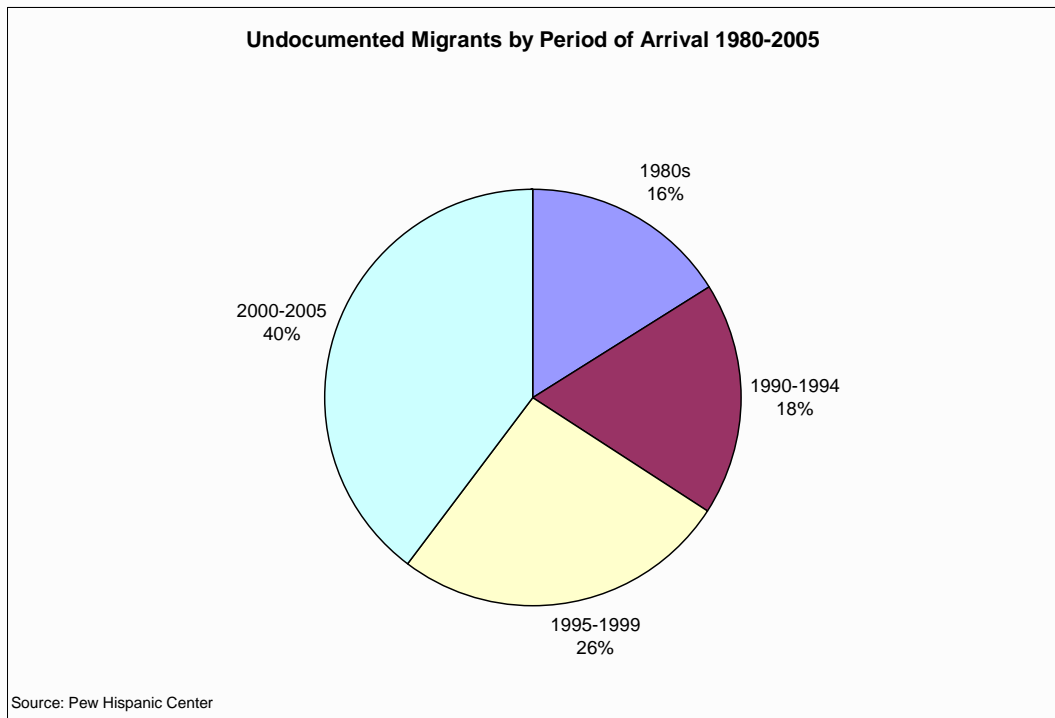
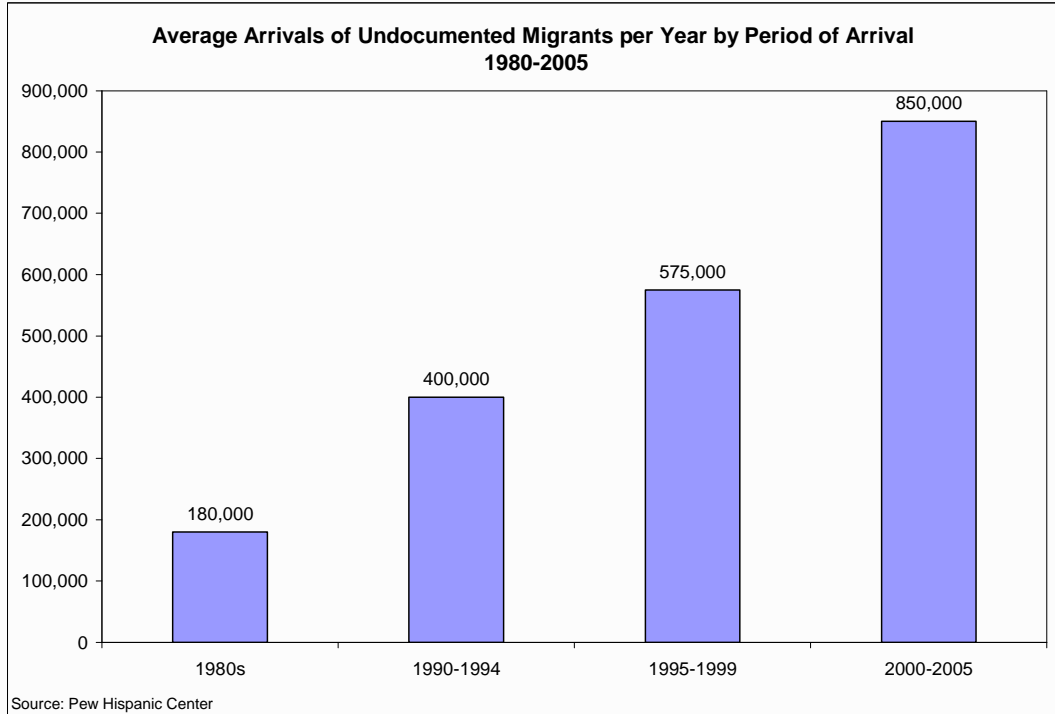


The states with the highest number of estimated undocumented migrants in 2005 included California (2.5-2.75 million), Texas (1.4-1.6 million), Florida (800,000-950,000), and New York (550,000-650,000).<sup>20</sup> Moreover, **there has been accelerated growth of undocumented arrivals since the beginning of this decade.** While the 1980s saw an average of some 180,000 undocumented arrivals per year, the number increased to almost 500,000 on the 1990s and 850,000 per year from 2000 to 2005.<sup>21</sup>

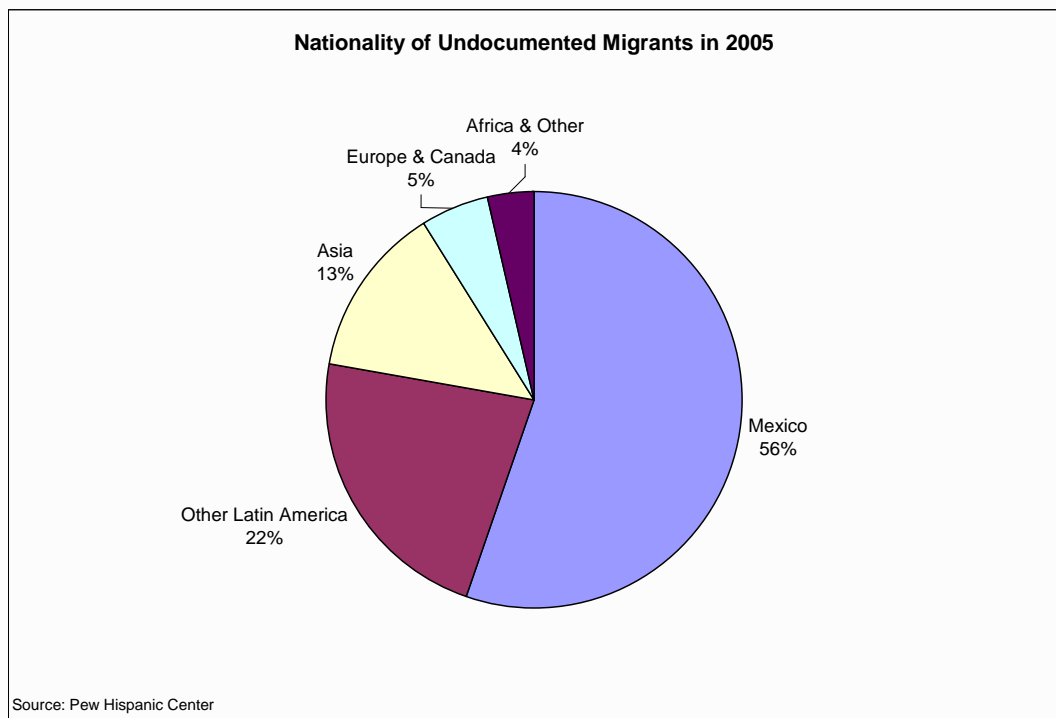
<sup>20</sup> "Fact Sheet: Estimates of Unauthorized Migrant Population for States based on March 2005 CPS," Pew Hispanic Center, April 26, 2006.

<sup>21</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 2.





While the undocumented population comes from all over the world, the largest portion is from Latin America (representing 78% of the undocumented population in 2005). Roughly 56% of these migrants are from Mexico alone.<sup>22</sup>

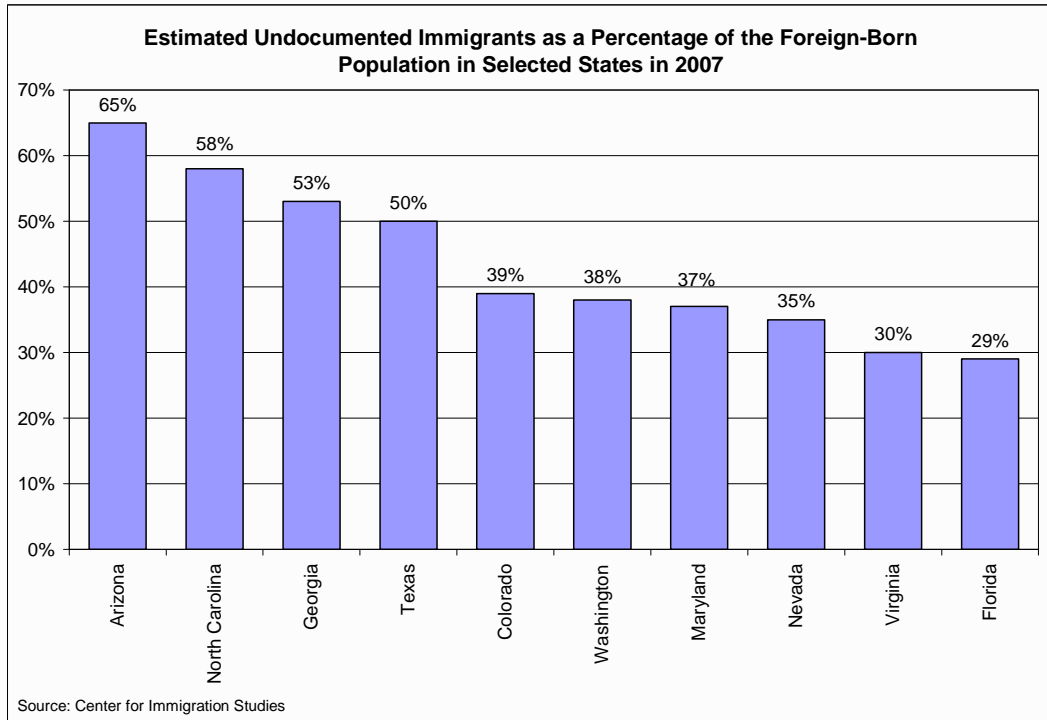


An interesting finding across states emerges when the focus of analysis shifts to only undocumented immigrants. As noted, immigrants are highly concentrated in selected states like California and New York. However, when looking at how many of those immigrants are undocumented, other states, such as Arizona, North Carolina, and Georgia, have a more significant relative presence. While not home to the largest number of immigrants or even the highest percent among the general public, data

<sup>22</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 4.



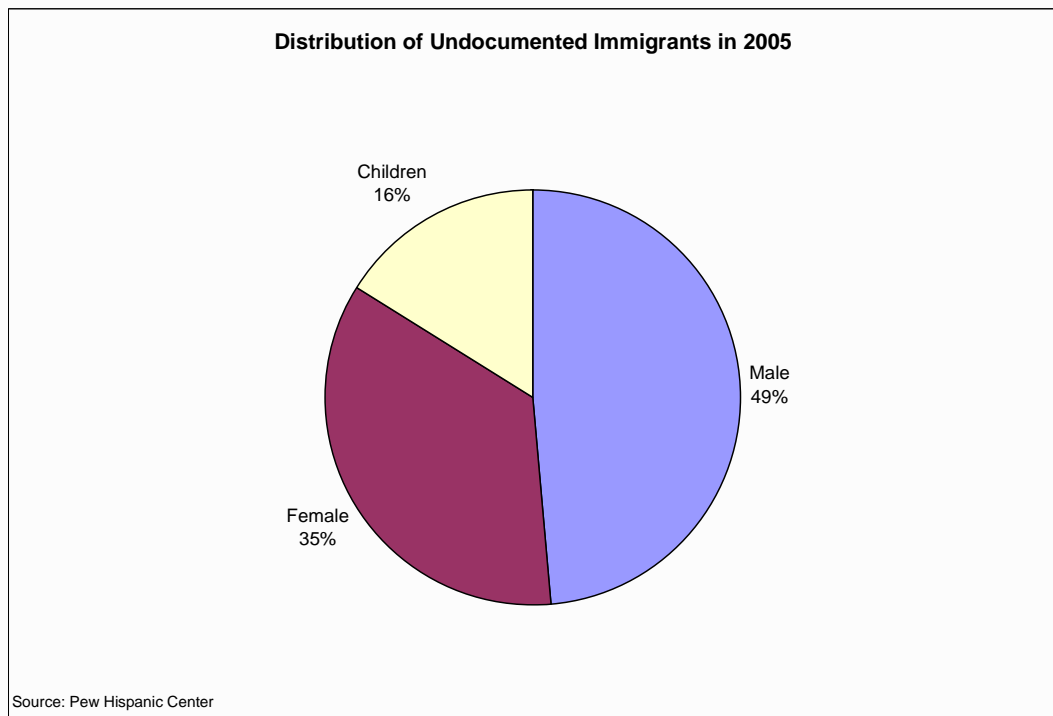
indicate that the immigrants in those states are more likely to be undocumented.<sup>23</sup>



<sup>23</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 31.

## Characteristics of Undocumented Families

In 2005, an estimated 6.6 million undocumented families of different types resided in the US. A majority of these families (59%) did not have children, and households made up of one individual were most common.<sup>24</sup> A number of these immigrants also have children once they are in the US, making their children US citizens and therefore not counted in the number of undocumented children in the US, although they may still live in a household headed by an undocumented immigrant. Adult males are considerably more prevalent than adult females, an indicator of the responsiveness of this population to labor demand in key industries.



<sup>24</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 7.

As noted, many children in undocumented immigrant families are born in the United States and are citizens.<sup>25</sup> Immigration has thus accounted for a large portion of the national increase in public school enrollment over the past two decades.<sup>26</sup> Research shows that immigrants and their children (under 18 years of age) make up one-fifth of the school-age population and one-fourth of those in poverty in this country.<sup>27</sup> **Estimates indicate that about 4% of the school-age population is made up of children who are undocumented immigrants.**<sup>28</sup> Many require remedial assistance in language skills, which increases costs to the public schools. The cost to educate roughly 1.8 million undocumented children at an average of \$7,500 a child is about \$11.2 billion.<sup>29</sup> Other estimates of the costs to educate undocumented children and US-born children of undocumented immigrants reach \$30 billion.

It is important to note that undocumented immigrants pay sales taxes, property taxes (either explicitly or implicitly through rental outlays) and other types of fiscal levies. On every purchase of taxable goods or services, they are contributing to the fiscal receipts of state and local governments. In states that do not impose a personal income tax (such as Texas, Tennessee, and Florida), these forms of revenue generation are the primary vehicles for obtaining fiscal resources, and undocumented workers are not exempt from payment. Moreover, for many legitimate operations, they are subject to Social Security and other payroll deductions, yet are ineligible for the corresponding benefits.

---

<sup>25</sup> "Analysis Finds Immigration at Record Level," *nytimes.com*, Nov. 29, 2007.

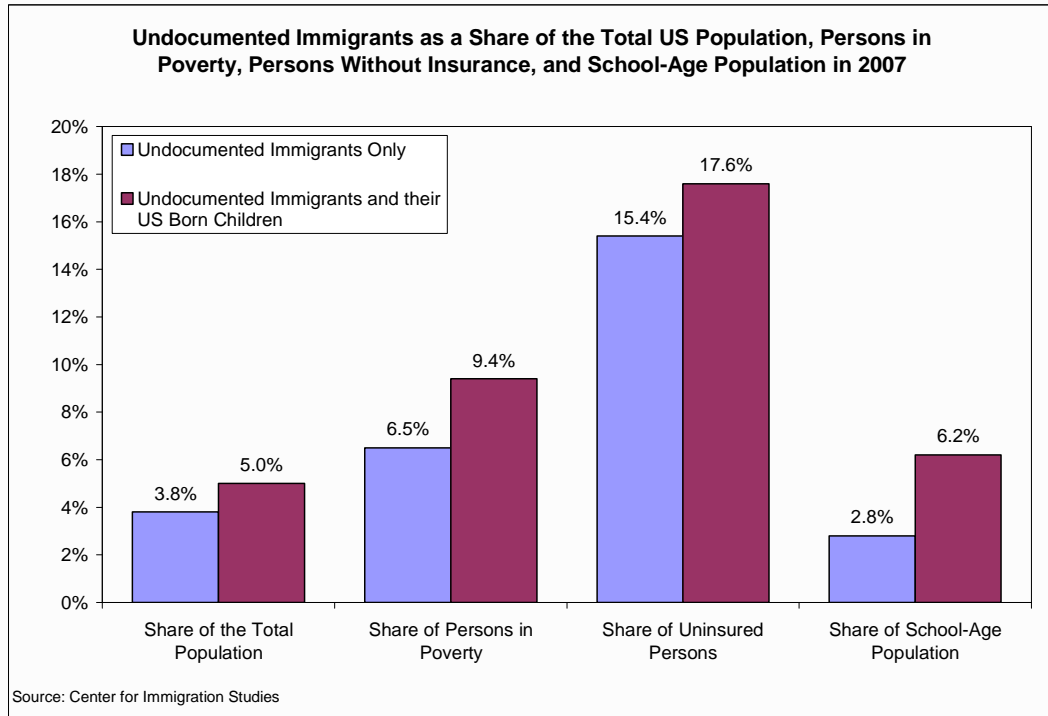
<sup>26</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 2.

<sup>27</sup> "Texas is Near Top in Immigration Growth," *star-telegram.com*, Nov. 29, 2007, p. 1.

<sup>28</sup> "The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments," Congressional Budget Office, Dec. 2007, p. 8.

<sup>29</sup> "S&P Study: Costs and Benefits of Undocumented Immigrants," *Hispanic News*, May 1, 2006, p. 2.





## Undocumented Workers

In 2005, there were roughly 7.2 million undocumented workers in the civilian labor force, which accounted for about 4.9% of the total US workforce of 148 million.<sup>30</sup> **Estimates compiled by The Perryman Group as a part of this study indicate that there are approximately 8.1 million undocumented workers as of 2008.** The Pew Hispanic Center has broken down this segment of the labor force even further, distinguishing between short- and long-term undocumented workers. While undocumented workers make up about 5% of the total labor force, short-term undocumented workers account for about 40% of all undocumented workers, and they are even more concentrated in selected sectors of the economy. In fact, more than half of short-term undocumented workers are employed in either construction or services industries.<sup>31</sup>

**Arizona has the highest percentage of undocumented workers as a share of the workforce of all states at 12%, more than double the national average.**<sup>32</sup>

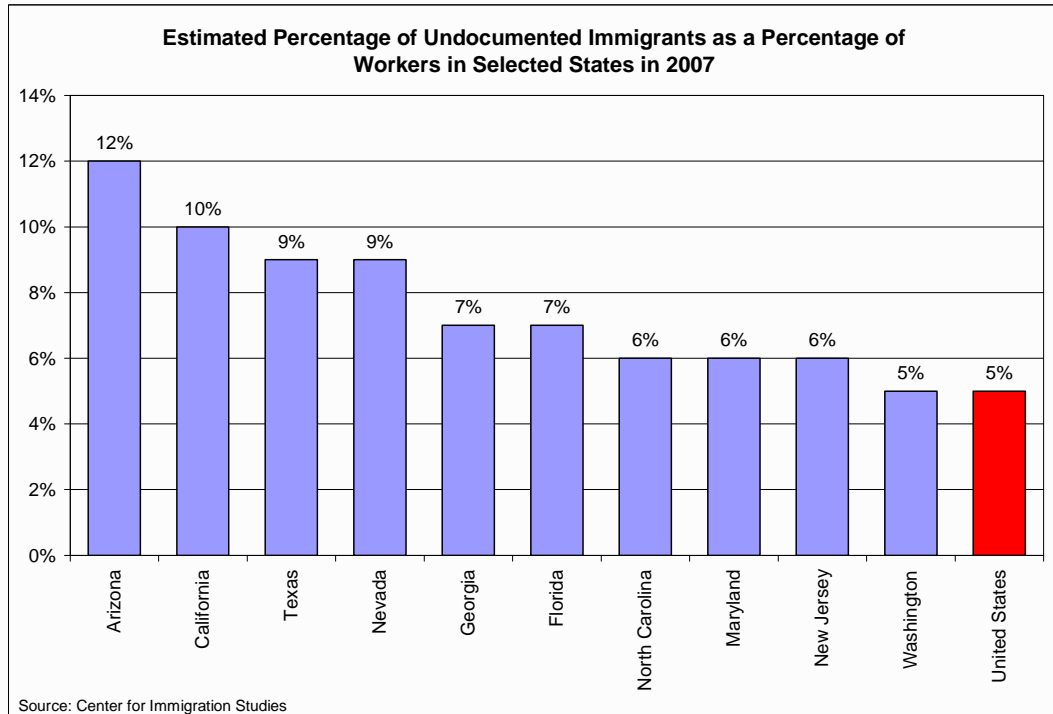
---

<sup>30</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 9.

<sup>31</sup> "Fact Sheet: The Labor Force Status of Short-Term Unauthorized Workers," Pew Hispanic Center, April 13, 2006, p. 1.

<sup>32</sup> "Backgrounder: Immigrants in the United States, 2007," Center for Immigration Studies, Nov. 2007, p. 31.





**Undocumented migrants are more likely to work when compared to native-born Americans; however, they do not earn as much on average as their legal or native counterparts.** In 2004, the Pew Hispanic Center estimated that the average annual income for undocumented families was \$27,400 compared to \$40,000 for both legal immigrants and native-born families.<sup>33</sup>

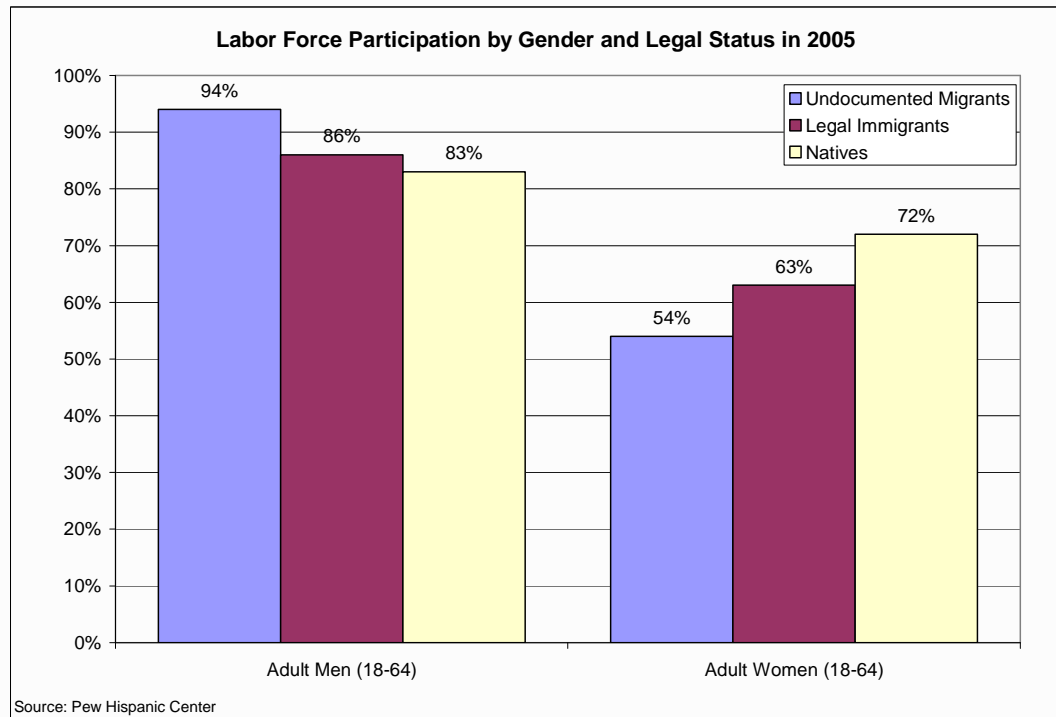
There are several reasons male undocumented migrants tend to have a higher employment rate. First, they have a younger median age, so less of this population is retired. Also, their entry into the workforce is unlikely to be delayed by college.<sup>34</sup> In addition, many of them come to the US specifically to take advantage of known job opportunities, and their

<sup>33</sup> "The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments," Congressional Budget Office, Dec. 2007, p. 2.

<sup>34</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 9.



numbers tend to fluctuate based on domestic demand for their services. However, female undocumented migrants are actually less likely to be in the labor force than natives (54% as compared to 72% of native born).<sup>35</sup>



## Undocumented Workers Fill Needs

Heated debates over the costs and benefits of undocumented workers and whether and to what extent Americans could fill the requisite positions needed are ongoing on a seemingly perpetual basis. However, **there is clear evidence that undocumented workers are currently making contributions to the US economy and society, especially in certain**

<sup>35</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 9.



**industries and occupations.** A more detailed discussion of the most dependent sectors is provided subsequently in this section.

**While there are a number of native-born Americans who are unemployed, the skill and education levels are highly mismatched with the types of jobs that undocumented workers typically fill.**

Moreover, the unemployment rate is relatively low, and the growth in the domestic workforce is quite modest. The geographical distribution of available US workers relative to high concentrations of undocumented labor is also not conducive to extensive substitution, as the undocumented immigrants tend to locate in areas of high demand.

**If all undocumented workers were removed from the workforce, a number of industries would face substantial shortages of workers, and Americans would have to be induced into the labor pool or provided incentives to take jobs far below their current education and skill levels.<sup>36</sup> For this phenomenon to occur to a meaningful extent, substantial wage escalation would likely be necessary, thus eroding competitiveness in global markets. Immigrants and particularly undocumented workers fill a number of important jobs in the US, especially in the services sector, construction, and farming.**

**As the domestic workforce becomes older, more stable in number, and better educated, the US production complex increasingly requires foreign, low-skilled workers.** Currently, the economy is relying on more low-skilled immigrant workers than the allowable work visas under current policy.

---

<sup>36</sup> Jaeger, David A., PhD, "Replacing the Undocumented Work Force," Center for American Progress, March 2006; "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006; "The Impact of the Undocumented Workforce on Business Activity in Texas," The Perryman Group, February 2007.





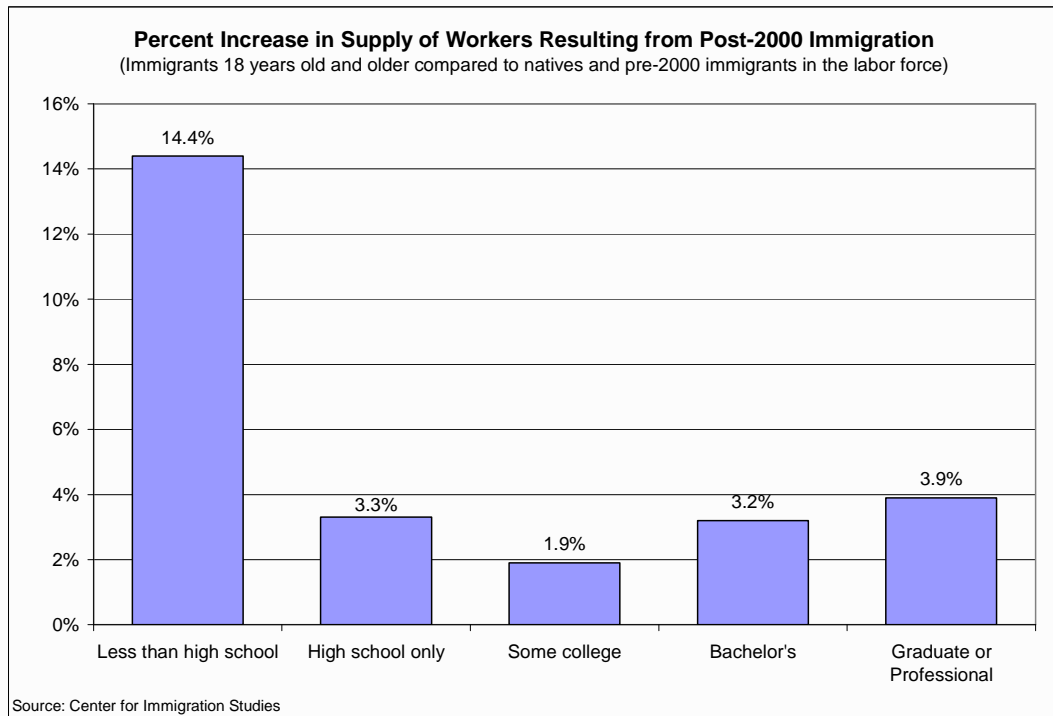
**In 1960, about 50% of men in this country joined the low-skilled labor force without completing high school; the number is now less than 10%.<sup>37</sup>** While a more educated workforce is certainly a positive development that has contributed to growth, productivity, and improved standards of living, there are still low-skilled jobs that need to be filled. In fact, with the retirement of many “boomers” beginning in 2008, long-term projections from the US Bureau of Labor Statistics indicate that about 60% of future requirements will be for replacements rather than net new positions. Moreover, most of these jobs will be in service industries, and about 70% will be at relatively low skill levels. The total demand will far exceed the rate of growth in the workforce that will occur from natural expansion and the entry afforded by current immigration policy, leaving a potential gap of tens of millions of laborers.<sup>38</sup> Even if, as would be expected, advances in technology reduce the shortage and some marginal workers are induced into the workforce from other sources, the need for an immigrant pool to perform these functions is likely to increase.

---

<sup>37</sup> “Late, Great Immigration Debate,” *Los Angeles Times*, February 20, 2007.

<sup>38</sup> See, for example, Stephen Levy, “Immigration and the Workforce – Themes, Issues, and Data,” Industrial Areas Foundation Economic Summit, November 30, 2007.





In short, immigrants, including those who are undocumented, are important to filling needs in the less-skilled labor force, an area that the Bureau of Labor Statistics and others project to grow substantially in the coming decade.<sup>39</sup> For several industries and occupations, undocumented immigrants serve as an important source of labor.

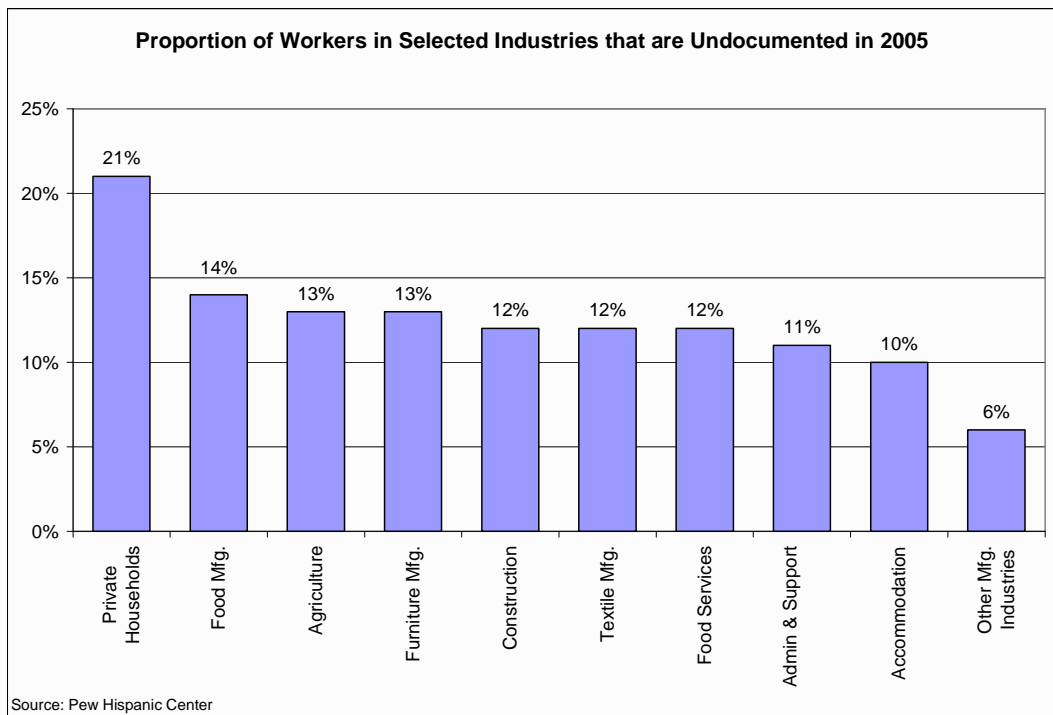
The concentration of undocumented workers greatly exceeds that of native born in both leisure and hospitality and in construction. **Seventeen percent of undocumented workers were employed in leisure and hospitality while only 8% of native workers held jobs in this industry.**

<sup>39</sup> Stephen Levy, "Immigration and the Workforce – Themes, Issues, and Data," Industrial Areas Foundation Economic Summit, November 30, 2007.



**About one in five (20%) of undocumented workers were employed in the construction industry compared to only 7% of native workers.<sup>40</sup>**

**Industries where undocumented workers make up a large share of the labor force include private household industries, food manufacturing, farming, furniture manufacturing, construction, textile manufacturing, food services, administrative and support services, accommodations, and selected elements of the manufacturing industry.<sup>41</sup>**



<sup>40</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 13.

<sup>41</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 14.

Although undocumented workers are employed in a number of different occupations, the distribution of occupations tends to be different from that of the native-born population. A higher percentage of undocumented workers held jobs in services occupations and construction and extractive occupations. **Thirty-one percent of the undocumented working population is employed in service occupations compared to only 16% of the native-born population. Nineteen percent of undocumented workers held jobs in construction and extractive occupations compared to 6% of the native-born population. A much higher percent of the native-born worker population is employed in white-collar jobs such as management, business, and professional occupations, and sales and administrative support (62%) compared to undocumented workers (23%).**<sup>42</sup>

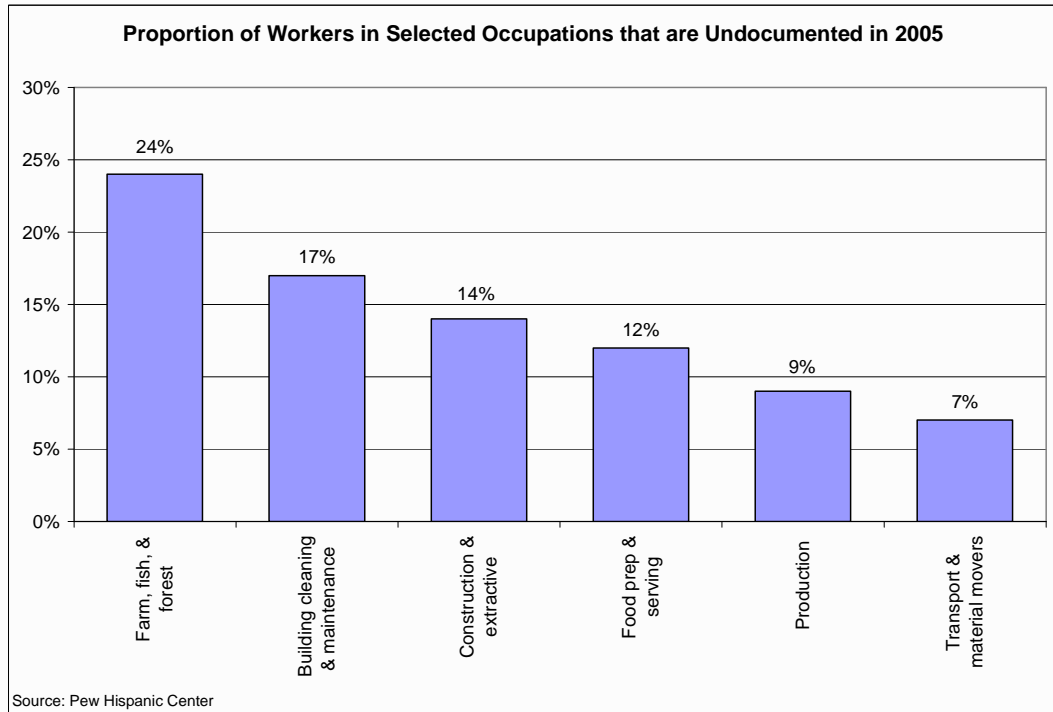
Moreover, **when examined based on the proportion of an occupational category which is filled by undocumented workers, farming, cleaning, construction, food preparation, production, and transport and material mover occupations all have higher concentrations of undocumented workers. While only 4% of undocumented migrants work in farming, they make up 24% of all workers employed in farming occupations.**<sup>43</sup>

---

<sup>42</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 10.

<sup>43</sup> "Research Report: The Size and Characteristics of the Unauthorized Migrant Population in the US," Pew Hispanic Center, March 7, 2006, p. 11.





In addition to filling jobs, undocumented workers are consumers contributing to the economy through their purchases with a percentage going to state and local sales taxes. Many also pay real estate taxes either directly as homeowners or indirectly as renters. Moreover, undocumented workers contribute to taxes as well as Social Security and Medicare. **Recent analysis indicates that between 50% and 75% of undocumented immigrants pay federal, state, and local taxes.**<sup>44</sup> Furthermore, their Social Security and Medicare contributions directly support older Americans as undocumented immigrants are not eligible to receive these services.<sup>45</sup> **Available evidence suggests that undocumented workers pay far more in overall taxes than they receive in benefits from various governments (even without**

<sup>44</sup> "The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments," Congressional Budget Office, Dec. 2007, p. 6.

<sup>45</sup> "Undocumented Workers: Impact on Missouri's Economy," The Missouri Budget Project, June 21, 2006 and "Replacing the Undocumented Work Force," Center for American Progress, March 2006.



**accounting for the “multiplier” effects of their activity); on the other hand, many state and local public entities experience a net deficit resulting from the specific services they offer (education, health care, law enforcement, etc.) relative to their principle sources of revenues.<sup>46</sup> It should be further noted that the present policy environment contributes to an underground economy in which many undocumented workers are treated as “independent contractors” and, thus, avoid paying substantial taxes. A program which recognizes the need for these workers and accounts for them more fully would increase fiscal resources as well as eliminate the competitive disadvantage which many lawful employers currently face. **This phenomenon has been widely analyzed, with the Bureau of Labor Statistics estimating that it has resulted in hundreds of millions of dollars in losses of direct tax revenues over time.<sup>47</sup>****

---

<sup>46</sup> “The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments,” Congressional Budget Office, Dec. 2007.

<sup>47</sup> De Silva, Dr. Lalith, Adrian W. Millett, Dominic M. Rotondi, and William F. Sullivan, “Independent Contractors: Prevalence and Implications for Unemployment Insurance Programs,” Feb. 2000.



## Measuring the Impact of the Undocumented Workforce

**The undocumented workforce is an important contributor to economic activity, particularly in certain industries, occupations, and geographic areas.** At the same time, there are certain costs involved such as health care, education, social services, and law enforcement. As noted earlier, however, **this group pays sufficient taxes in the aggregate to more than fund its fiscal requirements.**

In essence, the federal government and some state governments receive a net surplus, while other states and numerous local public entities suffer a deficit (usually modest, though with some exceptions). Thus, **there is a legitimate policy debate regarding the proper distribution of the taxes paid by undocumented workers.** Viewed on the whole, however, the group more than compensates for the services it receives. Thus, when evaluating the national benefits and costs of undocumented workers, it is not appropriate to offset the economic contributions for these costs.

### Methods Used

The methods used in this study to assess the economic impact of undocumented workers on the United States economy include dynamic input-output assessment, which essentially uses extensive survey data, industry information, and a variety of corroborative source materials to create a matrix describing the various goods and services (known as resources or inputs) required to produce one unit (a dollar's worth) of output for a given sector. Once the base information is compiled, it can be



mathematically simulated to generate evaluations of the magnitude of successive rounds of activity involved in the overall production process. This approach is used in the dynamic analysis; no “multiplier” effects are measured in the static or snapshot scenario. A detailed explanation of the methods and terms used in this study may be found in Appendix A.

In order to estimate the economic contribution of undocumented workers, The Perryman Group measured the economic fallout that would ensue if that segment of the national workforce was removed. Effects were calculated both by state and by industry.

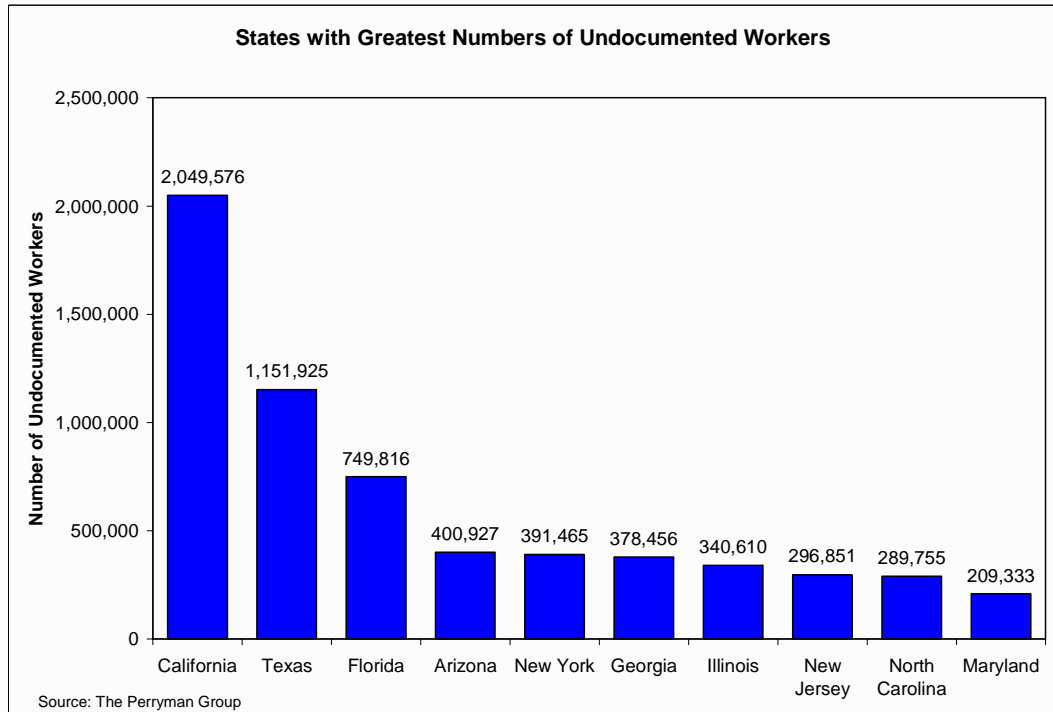
### **Estimated Undocumented Workforce by State**

As an initial phase of this effort, it was necessary to estimate the magnitude of the undocumented workforce by state. While there is some information available, particularly from recent Census surveys and related studies, TPG had to adjust the data to account for systematic undercounting and projected expansion as of 2008 (using conservative projections). Additionally, TPG employed multiple regression analysis to estimate the values for states with relatively small numbers of undocumented workers. (See Appendix A for more detail.)

TPG estimated the total US undocumented workforce to be some 8.1 million persons. As noted, there is substantial concentration in particular states.







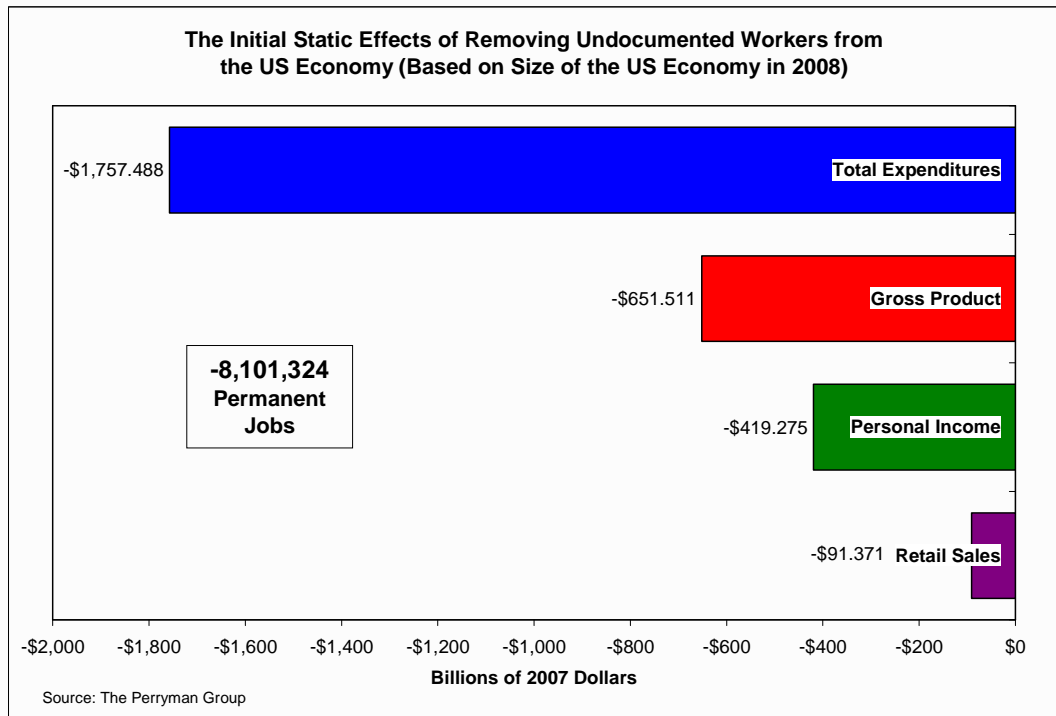
Once the numbers of undocumented workers were calculated, TPG allocated these employees to industries based on existing research regarding the sectoral and occupational patterns currently observed. The assignments occurred over more than 500 sectors and specifically reflected the industrial composition of each state.

### Initial Static Effects: US

The first measure provided is a “static” estimate. Essentially, this snapshot estimate illustrates the current impact of the undocumented workforce; it is calculated as the immediate annual volume of economic activity that would be lost if the undocumented workforce were suddenly removed.

For the US as a whole, the negative effect was found to be sizable. In fact, **the immediate effect of eliminating the undocumented workforce would include an estimated \$1.757 trillion in annual lost spending, \$651.511 billion in annual lost output, and 8.1 million job losses.**

(These effects are annual figures based on the size of the US economy in 2008.) This measure is indicative of what could be expected in a situation characterized by adoption of an enforcement-only and removal policy with no effective mechanisms to avoid disruptions.



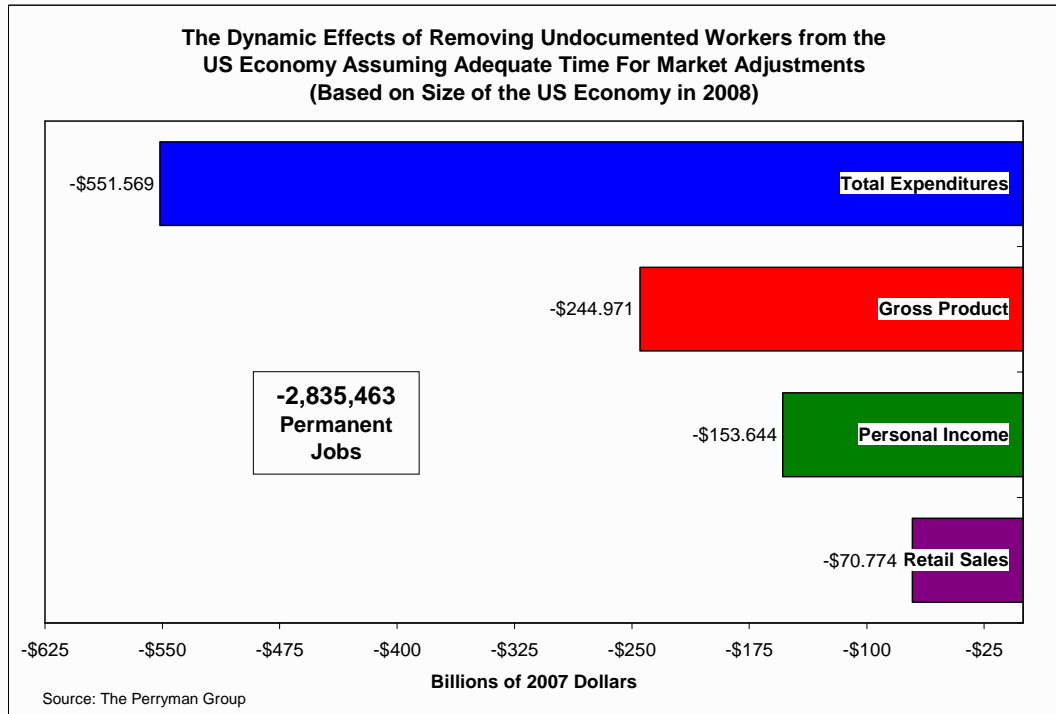
## Dynamic Effects: US

TPG also quantified the effects of removing undocumented workers once the economy had time to make market adjustments. These responses

would include actions such as increasing wage escalation and other strategies to encourage domestic workers to fill the labor void and changing production processes to substitute capital for labor. It also assumes that businesses would be successful in encouraging some types of subsequent reforms that would lead to a modestly larger “guest worker” provision or other methods of accommodating the need for foreign labor. On the other hand, the dynamic changes will also result in losses in production from suppliers to the sectors most directly affected and retailers and others who depend on high levels of employment and income.

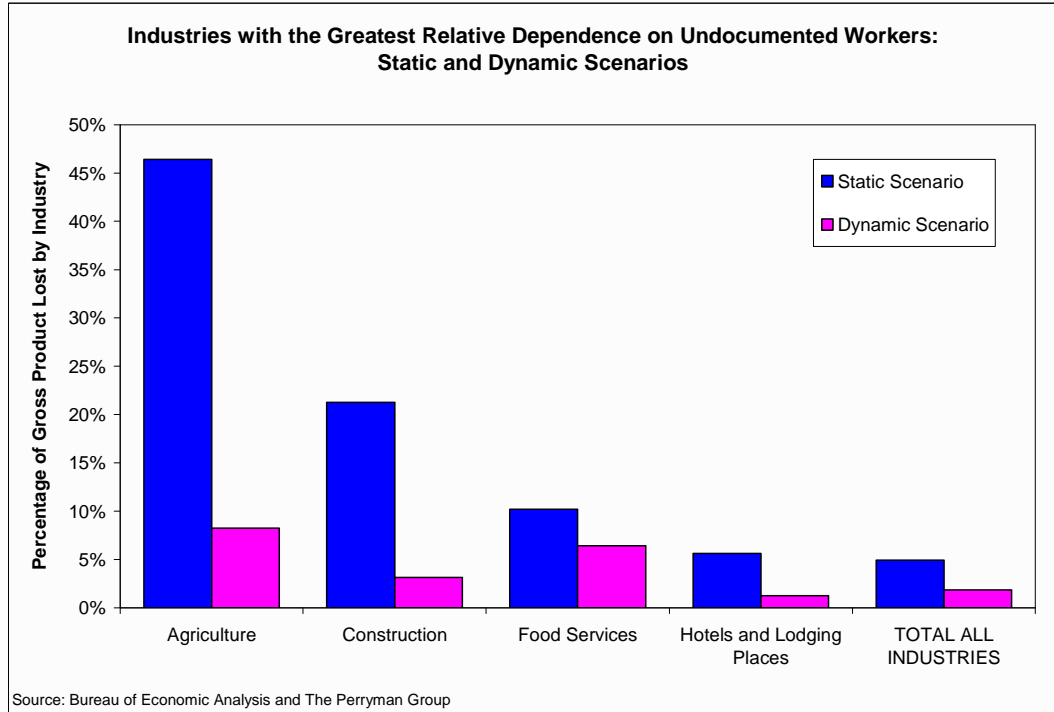
In structuring this scenario, TPG assumed that the adjustments would be quite successful and offset much of the initial shock. Nonetheless, the outcomes involve the permanent loss of millions of jobs and would prove highly detrimental to particular geographic areas and industries. In fact, TPG calculated that **the foregone economic activity (based on the size of the national economy in 2008) would include some \$551.569 billion in annual spending, \$244.971 billion in annual output, and more than 2.8 million lost jobs.**





## Industrial Effects

As noted, certain industries are especially dependent on the undocumented workforce and would be particularly hard hit if it were removed. In fact, for the agriculture and construction sectors, the initial effects would be extremely disruptive.



More than 1.62 million construction jobs would be lost in the initial static effects estimate. Even after the market had time to fully adjust, construction-segment job losses would approach 230,000.

Many other industries would experience substantial job losses including retail trade, eating and drinking places, and several segments of the services sector. Full listings of the drop in business activity by industry may be found in Table 1 (for the initial static effects) and Table 3 (for the dynamic effects) of Appendix B.

## State-Level Effects

Several states lose a notable percentage of business activity if the undocumented workforce is removed. These states naturally include several along the US-Mexico border, but also others scattered around the country. The following maps illustrate the expenditures and job losses stemming from removal of the undocumented workforce for the static and dynamic scenarios.

**LOST EXPENDITURES STEMMING FROM REMOVAL OF THE UNDOCUMENTED WORKFORCE:  
Initial Static Scenario  
(In Millions of 2007 Dollars)**



**LOST JOBS STEMMING FROM REMOVAL OF THE UNDOCUMENTED WORKFORCE:  
Initial Static Scenario**



**LOST EXPENDITURES STEMMING FROM REMOVAL OF THE UNDOCUMENTED WORKFORCE:  
Dynamic Scenario  
(In Millions of 2007 Dollars)**

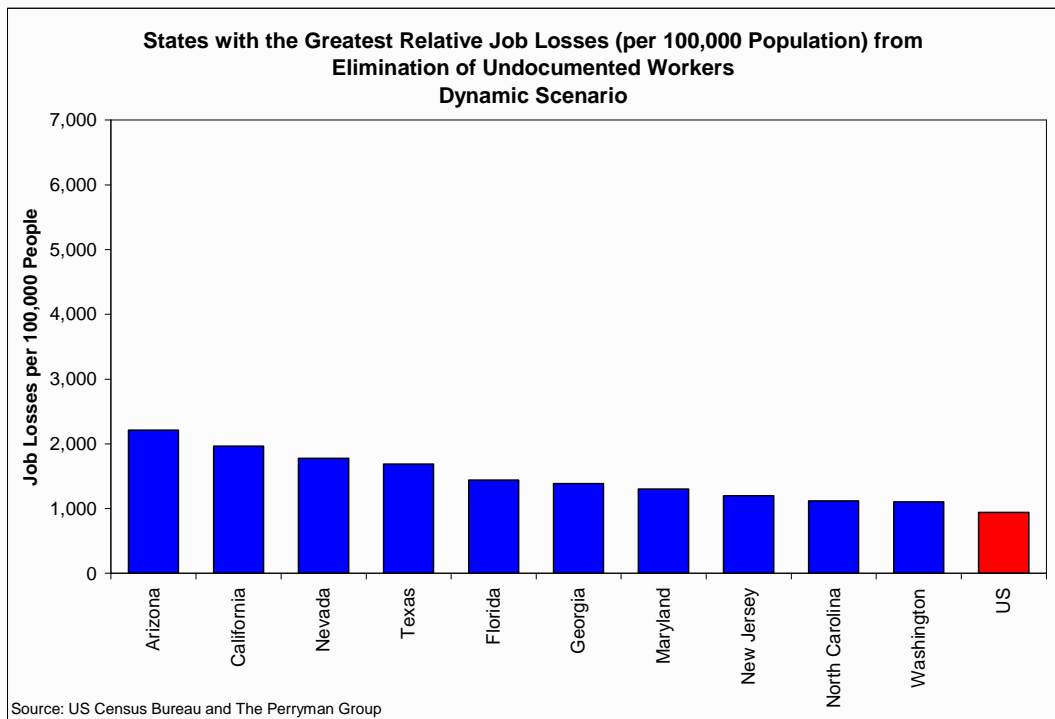
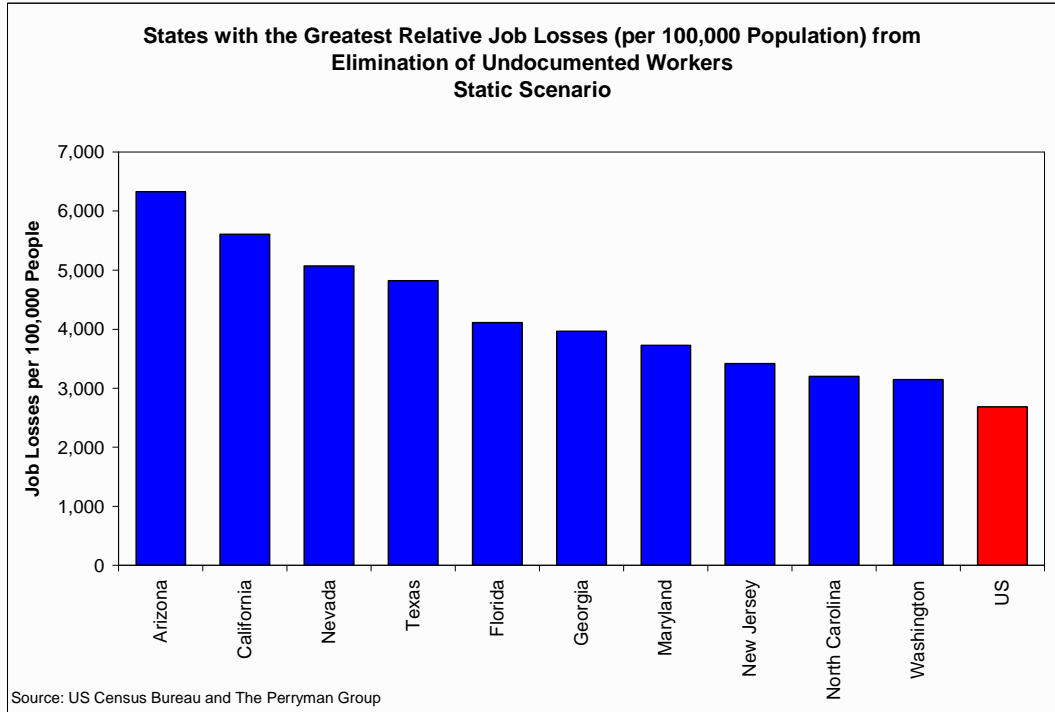




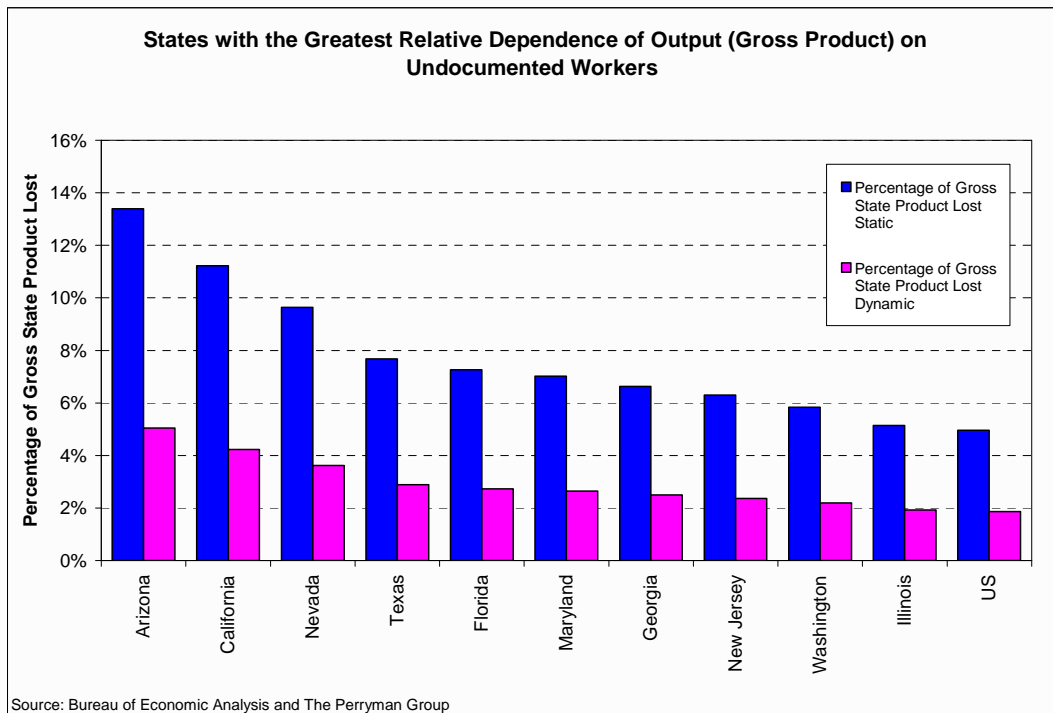
**LOST JOBS STEMMING FROM REMOVAL OF THE UNDOCUMENTED WORKFORCE:  
Dynamic Scenario**



The following charts illustrate the job losses per 100,000 population that would be experienced in the most-affected states in the static and dynamic scenarios.



When measured as a proportion of economic output, many of the same states are highly affected. Losses approach 14% in Arizona and top 5% in 9 other states. Moreover, many of the most affected states are among the most populous in the country.



Another illustration of the dependence of these states on the undocumented workforce is losses on a per-capita basis.

### Selected Measures of Per-Capita Losses in Business Activity Among States with the Greatest Relative Dependence on Undocumented Workers

State	Static Scenario			Dynamic Scenario		
	Expenditures losses per capita	Output losses per capita	Income losses per capita	Expenditures losses per capita	Output losses per capita	Income losses per capita
California	\$14,314	\$5,306	\$3,415	\$4,492	\$1,995	\$1,251
Arizona	\$13,255	\$4,914	\$3,162	\$4,160	\$1,848	\$1,159
Nevada	\$12,002	\$4,449	\$2,863	\$3,767	\$1,673	\$1,049
Texas	\$9,231	\$3,422	\$2,202	\$2,897	\$1,287	\$807
New Jersey	\$8,873	\$3,289	\$2,117	\$2,785	\$1,237	\$776
Maryland	\$8,688	\$3,221	\$2,073	\$2,727	\$1,211	\$760
Florida	\$7,663	\$2,841	\$1,828	\$2,405	\$1,068	\$670
Washington	\$7,143	\$2,648	\$1,704	\$2,242	\$996	\$624
Georgia	\$7,120	\$2,639	\$1,699	\$2,234	\$992	\$622
Illinois	\$6,356	\$2,356	\$1,516	\$1,995	\$886	\$556
<b>US</b>	<b>\$5,827</b>	<b>\$2,160</b>	<b>\$1,390</b>	<b>\$1,829</b>	<b>\$812</b>	<b>\$509</b>

Note: All monetary values in 2007 dollars.

For a complete listing of lost business activity by state, see Table 2 (static effects) and Table 4 (dynamic effects) in Appendix B.



## A Public Policy Perspective

As noted at the outset, one of the primary purposes of this analysis is to provide an economic framework to help in shaping the public policy debate in a reasonable manner. **The most compelling conclusions from this assessment are (1) the undocumented workforce is vital to US business growth and prosperity (and, in some cases, sustainability) and, thus, (2) an enforcement-only and removal approach is simply not viable.**

The enforcement-only model is, in essence, a mechanism to eliminate undocumented workers without providing an alternative mechanism to accommodate the critical employment needs of the economy. If it were to be adopted with employer sanctions rigorously applied, as many of its proponents advocate, it would quickly remove this segment of the workforce, with the near-term consequences approximating those of the “static” scenario previously described.

Moreover, the adjustment process anticipated in the “dynamic” case would be difficult to achieve in a reasonable period of time. In fact, evidence suggests that many agricultural enterprises are not sufficiently strong financially to survive even a single year in which crops could not be harvested and marketed.<sup>48</sup> Thus, the underlying productive apparatus would be dismantled, resulting in lengthy delays and substantial obstacles to efforts to overcome the initial effects. Similarly, the inability to complete construction projects in a timely manner could lead to alternative and suboptimal land use that would have lasting adverse consequences.

---

<sup>48</sup> Farm Credit Association of New York Background Analysis, “Farm Labor and Immigration Reform Economic Impact to New York State Agriculture, October 2007.”



Many communities that are dependent on tourism would also have their fundamental structures undermined in a permanent fashion.

It is, however, imperative that thoughtful reform which accommodates economic reality be enacted by Congress to replace the existing underground labor market. An initiative to identify and integrate existing workers can result in increased efficiency, higher tax collections, a more equitable competitive framework for employers, and avoidance of the massive disruptions quantified in this study that would be wrought by reactionary measures.

In short, there is clearly a need to modernize immigration procedures in the US, and an ongoing and meaningful dialog about undocumented workers (as compared to the relative silence of past decades) can yield positive outcomes. It is imperative, however, that philosophical notions and survey responses based on incomplete information be tempered by a focus on pragmatic consideration of the situation as it has evolved and currently exists. It is only then that rational evaluation of available options can meaningfully occur. **When the often enflamed rhetoric associated with this volatile issue encounters the factual reality of the modern economy, two results are immediately and unambiguously apparent—enforcement-only plans are not viable and the limitations of the status quo must be addressed.**



## Conclusion

**The sheer increased number of immigrants, both legal and undocumented, throughout this decade has moved immigration policy to the forefront of concerns for many people.** Clearly, there are no simple answers to the question of immigration, as it is difficult to craft a policy which simultaneously addresses its many complex elements.

The issue of the undocumented workforce is particularly sensitive, and many Americans have strong feelings concerning the topic. Without a doubt, there are costs and security issues associated with the unregulated crossing of our national borders. Though difficult to measure, costs of the undocumented population include some limited social services (primarily medical care) and education. While some services are provided by the federal government, many services depend on the states and localities, which have varying policies for the distribution of social services. However, it is well documented that the immigrant population, undocumented included, have an overall lower level of education and are often working in jobs that do not provide many benefits. Immigrants are more likely to use emergency care facilities, for example, due to the lack of insurance, which poses a higher social cost. On the other hand, the undocumented workers pay more than sufficient taxes to cover their aggregate use of public resources.

More important, however, there are important and indeed critical economic factors that should be considered in any immigration policy initiative. **The undocumented workforce comprises a notable percentage of total workers in many industrial and occupational categories, which are becoming increasingly difficult for employers to fill.** Without



undocumented workers, notable labor shortages would emerge, and significant economic dislocations would occur.

The Perryman Group's analysis indicates that the undocumented workforce has a positive effect on the economy, even when the costs of the undocumented immigrants are considered. In fact, **if all undocumented workers were removed from the US economy, the immediate effect would be the loss of some 8.1 million jobs. Even after the economy adjusted, job losses would still exceed 2.8 million.** Every state sees some level of negative impact, although the magnitude varies widely.

The United States is a country with a long history of immigration; in fact, a vast majority of Americans are descended from immigrants. While it is certainly worthwhile to consider the implications of immigration from the perspectives of national security and others, overly restrictive limitations, such as the widely discussed and advocated enforcement-only mechanisms, could result in significant and irreversible economic fallout. Programs that improve the ability to identify and authorize this population without compromising its availability in the workforce can actually improve the efficiency of business activity. In particular, **it is imperative that any rational policy recognize the basic and inescapable reality that the resource represented by undocumented workers is an absolutely essential element of the modern US economy.**

Respectfully submitted,



M. Ray Perryman, PhD, President  
The Perryman Group





# APPENDICES

## APPENDIX A: US Multi-Regional Impact Assessment System

## **US Multi-Regional Impact Assessment System**

The basic modeling technique employed in this study is known as input-output analysis. This methodology essentially uses extensive survey data, industry information, and a variety of corroborative source materials to create a matrix describing the various goods and services (known as resources or inputs) required to produce one unit (a dollar's worth) of output for a given sector. Once the base information is compiled, it can be mathematically simulated to generate evaluations of the magnitude of successive rounds of activity involved in the overall production process.

There are two essential steps in conducting an input-output analysis once the system is operational. The first major endeavor is to accurately define the levels of direct activity to be evaluated. The second step is the simulation of the input-output system to measure overall economic effects. In the case of a prospective evaluation, it is necessary to first calculate reasonable estimates of the direct activity.

In this case, the direct magnitude of the undocumented workforce was calculated based on the most recently available information from the Current Population Survey adjusted for (1) the anticipated growth through 2008 under a conservative scenario and (2) academic studies quantifying the undercount in the Census report. Studies from leading research centers have quantified the number of undocumented workers in the states with significant concentrations. The estimates for the remaining states were obtained using a multiple regression equation linking undocumented to workers to predictive variables which are generally available for all states (such as the number of new immigrants since 2000). This expression exhibited excellent statistical properties, including correlation coefficients in excess of .95, highly significant coefficients, and effective performance in out-of-sample projections.



Once these values were determined, they were allocated across more than 500 industrial sectors in each state based on the best available information regarding current employment patterns. For the initial, “snapshot” or static scenario in which all undocumented workers are removed from the economy, only the direct and immediate effects are calculated. The aggregates other than employment are derived from the parameters of the US Multi-Regional Impact Assessment System (USMRIAS), which is described in detail below. Full adjustment is made for the income and productivity factors associated with the specific occupational categories typically characteristic of undocumented workers and for the different economic structures of the various states.

For the “dynamic” scenario, it is assumed that firms respond to the loss of workers by trying to attract domestic workers, raising wages, and other actions designed to minimize the effects of losing the undocumented workforce. It is further presumed that (1) the success in this regard is sufficient to bring the unemployment rate down to the lowest sustainable levels; (2) there is some provision for increased entry; and (3) additional persons not in the labor force are induced to take the relevant positions. This activity tends to offset the initial effect of removing the workers.

On the other hand, the responses to the worker shortage will also have adverse secondary effects. For example, a decline in available construction workers will lead to losses in sales and production of construction materials, real estate and financing opportunities, and other types of related activity. For purposes of illustration, this simulation is done as if the economy were of the size observed in 2008. In reality, these responses would occur over time and would be somewhat larger. The modeling system used to examine these various interactions is briefly described below.



Once the direct input values were determined, the present study was conducted within the context of the US Multi-Regional Impact Assessment System (USMRIAS) which was developed and is maintained by The Perryman Group. This model has been used in hundreds of diverse applications across the country and has an excellent reputation for accuracy and credibility. In addition, the model has been in operation and continually updated for over two decades. The systems used in the current simulations reflect the unique industrial structures of the economies of each state.

The USMRIAS is somewhat similar in format to the Input-Output Model of the United States and the Regional Input-Output Modeling System, both of which are maintained by the US Department of Commerce. The model developed by TPG, however, incorporates several important enhancements and refinements. Specifically, the expanded system includes (1) comprehensive 500-sector coverage for any county, multi-county, or urban region; (2) calculation of both total expenditures and value-added by industry and region; (3) direct estimation of expenditures for multiple basic input choices (expenditures, output, income, or employment); (4) extensive parameter localization; (5) price adjustments for real and nominal assessments by sectors and areas; (6) measurement of the induced impacts associated with payrolls and consumer spending; (7) embedded modules to estimate multi-sectoral direct spending effects; (8) estimation of retail spending activity by consumers; and (9) comprehensive linkage and integration capabilities with a wide variety of econometric, real estate, occupational, and fiscal impact models. The models used for the present investigation have been thoroughly tested for reasonableness and historical reliability.



As noted earlier, the impact assessment (input-output) process essentially estimates the amounts of all types of goods and services required to produce one unit (a dollar's worth) of a specific type of output. For purposes of illustrating the nature of the system, it is useful to think of inputs and outputs in dollar (rather than physical) terms. As an example, the construction of a new building will require specific dollar amounts of lumber, glass, concrete, hand tools, architectural services, interior design services, paint, plumbing, and numerous other elements. Each of these suppliers must, in turn, purchase additional dollar amounts of inputs. This process continues through multiple rounds of production, thus generating subsequent increments to business activity. The initial process of building the facility is known as the *direct effect*. The ensuing transactions in the output chain constitute the *indirect effect*.

Another pattern that arises in response to any direct economic activity comes from the payroll dollars received by employees at each stage of the production cycle. As workers are compensated, they use some of their income for taxes, savings, and purchases from external markets. A substantial portion, however, is spent locally on food, clothing, health care services, utilities, housing, recreation, and other items. Typical purchasing patterns in the relevant areas are obtained from the *ACCRA Cost of Living Index*, a privately compiled inter-regional measure which has been widely used for several decades, and the *Consumer Expenditure Survey* of the US Department of Labor. These initial outlays by area residents generate further secondary activity as local providers acquire inputs to meet this consumer demand. These consumer spending impacts are known as the *induced effect*. The USMRIAS is designed to provide realistic, yet conservative, estimates of these phenomena.



Sources for information used in this process include the Bureau of the Census, the Bureau of Labor Statistics, the Regional Economic Information System of the US Department of Commerce, and other public and private sources. The pricing data are compiled from the US Department of Labor and the US Department of Commerce. The verification and testing procedures make use of extensive public and private sources. Note that all monetary values, unless otherwise noted, are given in constant (2007) dollars to eliminate the effects of inflation.

The USMRIAS generates estimates of the effect on several measures of business activity. The most comprehensive measure of economic activity used in this study is **Total Expenditures**. This measure incorporates every dollar that changes hands in any transaction. For example, suppose a farmer sells wheat to a miller for \$0.50; the miller then sells flour to a baker for \$0.75; the baker, in turn, sells bread to a customer for \$1.25. The Total Expenditures recorded in this instance would be \$2.50, that is,  $\$0.50 + \$0.75 + \$1.25$ . This measure is quite broad, but is useful in that (1) it reflects the overall interplay of all industries in the economy, and (2) some key fiscal variables such as sales taxes are linked to aggregate spending.

A second measure of business activity frequently employed in this analysis is that of **Gross Product**. This indicator represents the state equivalent of Gross Domestic Product, the most commonly reported statistic regarding national economic performance. In other words, the Gross Product of, say, Texas is the amount of US output that is produced in that area. It is defined as the value of all final goods produced in a given state for a specific period of time. Stated differently, it captures the amount of value-added (gross state product) over intermediate goods and services at each stage of the production process, that is, it eliminates the



double counting in the Total Expenditures concept. Using the example above, the Gross Product is \$1.25 (the value of the bread) rather than \$2.50. Alternatively, it may be viewed as the sum of the value-added by the farmer, \$0.50; the miller, \$0.25 ( $\$0.75 - \$0.50$ ); and the baker, \$0.50 ( $\$1.25 - \$0.75$ ). The total value-added is, therefore, \$1.25, which is equivalent to the final value of the bread. In many industries, the primary component of value-added is the wage and salary payments to employees.

The third gauge of economic activity used in this evaluation is **Personal Income**. As the name implies, Personal Income is simply the income received by individuals, whether in the form of wages, salaries, interest, dividends, proprietors' profits, or other sources. It may thus be viewed as the segment of overall impacts which flows directly to the citizenry.

The final aggregate used is **Permanent Jobs**. It should be noted that, unlike the dollar values described above, Permanent Jobs is a "stock" rather than a "flow." In other words, if an area produces \$1 million in output in 1999 and \$1 million in 2000, it is appropriate to say that \$2 million was achieved in the 1999-2000 period. If the same area has 100 people working in 1999 and 100 in 2000, it only has 100 Permanent Jobs. When a flow of jobs is measured, such as in a construction project or a cumulative assessment over multiple years, it is appropriate to measure employment in Person-Years (a person working for a year). This concept is distinct from Permanent Jobs, which anticipates that the relevant positions will be maintained on a continuing basis.





## APPENDIX B: Detailed Results

**Table 1**  
**The Initial Static Effects of Removing Undocumented Workers from**  
**the US Economy (Based on Size of the US Economy in 2008)**  
**Detailed Industrial Category**

Category	Total Expenditures	Gross Product	Personal Income	Employment (Permanent Jobs)
Agricultural Products & Services	(\$171,870,237,727)	(\$57,499,846,818)	(\$29,071,477,819)	-476,277
Forestry & Fishery Products	(\$6,905,177,900)	(\$678,752,603)	(\$176,905,344)	-9,802
Coal Mining	(\$281,619,975)	(\$52,092,765)	(\$75,189,095)	-1,399
Crude Petroleum & Natural Gas	(\$154,755,953,233)	(\$37,461,879,985)	(\$15,108,699,365)	-40,386
Miscellaneous Mining	(\$529,668,793)	(\$183,735,864)	(\$136,524,729)	-4,935
New Construction	(\$217,838,243,099)	(\$80,484,098,746)	(\$65,312,612,874)	-973,294
Maintenance & Repair Construction	(\$100,152,481,702)	(\$53,499,662,366)	(\$41,134,979,437)	-646,971
Food Products & Tobacco	(\$198,676,719,399)	(\$42,412,428,922)	(\$21,713,503,030)	-405,195
Textile Mill Products	(\$5,004,740,048)	(\$1,103,524,655)	(\$1,003,450,402)	-20,444
Apparel	(\$9,203,420,378)	(\$4,427,247,102)	(\$2,412,868,323)	-101,076
Paper & Allied Products	(\$5,065,530,869)	(\$1,736,633,770)	(\$994,230,980)	-16,372
Printing & Publishing	(\$13,383,964,448)	(\$7,216,314,660)	(\$4,265,297,161)	-64,542
Chemicals & Petroleum Refining	(\$226,085,612,165)	(\$38,337,845,154)	(\$18,510,304,965)	-72,578
Rubber & Leather Products	(\$9,861,470,764)	(\$3,630,602,360)	(\$2,402,476,426)	-39,167
Lumber Products & Furniture	(\$21,617,395,814)	(\$6,962,657,739)	(\$5,633,143,371)	-101,590
Stone, Clay, & Glass Products	(\$10,037,243,947)	(\$4,445,250,673)	(\$2,646,389,694)	-33,115
Primary Metal	(\$9,904,731,457)	(\$2,584,994,077)	(\$2,199,496,878)	-19,611
Fabricated Metal Products	(\$21,542,991,897)	(\$8,720,750,161)	(\$5,858,952,297)	-85,493
Machinery, Except Electrical	(\$23,616,573,770)	(\$7,786,107,399)	(\$6,761,159,940)	-74,762
Electric & Electronic Equipment	(\$19,768,276,545)	(\$9,428,396,275)	(\$6,694,154,792)	-86,540
Motor Vehicles & Equipment	(\$14,874,589,495)	(\$4,344,390,358)	(\$2,600,415,301)	-24,760
Transp. Equip., Exc. Motor Vehicles	(\$8,301,847,934)	(\$3,901,921,208)	(\$2,556,328,651)	-44,334
Instruments & Related Products	(\$3,992,954,691)	(\$1,146,954,940)	(\$1,313,985,782)	-12,944
Miscellaneous Manufacturing	(\$4,407,359,404)	(\$1,123,330,094)	(\$1,029,622,519)	-12,677
Transportation	(\$37,635,534,056)	(\$21,429,703,678)	(\$15,462,755,304)	-296,405
Communication	(\$10,198,026,661)	(\$6,483,065,448)	(\$2,995,847,891)	-36,628
Electric, Gas, Water, Sanitary Services	(\$41,826,938,980)	(\$7,490,022,825)	(\$3,541,465,125)	-11,510
Wholesale Trade	(\$29,490,938,328)	(\$20,162,201,360)	(\$12,046,151,665)	-162,026
Retail Trade	(\$46,661,095,539)	(\$36,689,917,671)	(\$22,552,396,816)	-729,119
Finance	(\$15,327,356,848)	(\$9,012,538,950)	(\$6,207,643,387)	-68,884
Insurance	(\$5,599,865,746)	(\$4,201,217,961)	(\$2,571,666,340)	-39,344
Real Estate	(\$69,433,791,215)	(\$20,457,168,986)	(\$3,402,450,470)	-43,748
Hotels, Lodging Places, Amusements	(\$43,671,552,644)	(\$20,583,061,614)	(\$13,407,103,540)	-364,560
Personal Services	(\$13,518,396,051)	(\$7,124,740,503)	(\$6,127,518,787)	-179,133
Business Services	(\$100,225,786,579)	(\$63,500,137,221)	(\$54,964,397,355)	-893,123
Eating & Drinking Places	(\$44,709,908,951)	(\$24,580,916,511)	(\$13,888,618,077)	-1,053,172
Health Services	(\$17,652,364,861)	(\$12,543,926,733)	(\$10,528,716,658)	-226,354
Miscellaneous Services	(\$15,162,370,886)	(\$9,387,059,635)	(\$5,978,788,612)	-223,987
Households	(\$8,695,432,328)	(\$8,695,432,328)	(\$5,987,404,036)	-405,066
<b>Total</b>	<b>(\$1,757,488,165,125)</b>	<b>(\$651,510,530,119)</b>	<b>(\$419,275,093,239)</b>	<b>-8,101,324</b>

SOURCE: US Multi-Regional Impact Assessment System, The Perryman Group



**Table 2**  
**The Initial Static Effects of Removing Undocumented Workers from the US Economy (Based on Size of the US Economy in 2008)**  
**Results by State**

State	Total Expenditures	Gross Product	Personal Income	Employment (Permanent Jobs)
Alabama	(\$8,236,833,308)	(\$3,053,439,415)	(\$1,965,019,806)	-50,911
Alaska	(\$1,544,355,843)	(\$572,501,206)	(\$368,429,190)	-5,657
Arizona	(\$84,017,236,757)	(\$31,145,651,814)	(\$20,043,568,699)	-400,927
Arkansas	(\$2,541,668,221)	(\$942,210,390)	(\$606,352,977)	-19,027
California	(\$523,230,324,084)	(\$193,964,359,239)	(\$124,824,421,165)	-2,049,576
Colorado	(\$25,502,451,160)	(\$9,453,898,925)	(\$6,083,991,233)	-113,537
Connecticut	(\$17,957,199,125)	(\$6,656,832,492)	(\$4,283,958,485)	-68,910
Delaware	(\$3,023,732,904)	(\$1,120,914,420)	(\$721,356,718)	-17,999
District of Columbia	(\$3,518,829,698)	(\$1,304,449,525)	(\$839,469,465)	-15,428
Florida	(\$139,864,202,254)	(\$51,848,429,118)	(\$33,366,697,770)	-749,816
Georgia	(\$67,955,595,035)	(\$25,191,512,879)	(\$16,211,823,789)	-378,456
Hawaii	(\$6,458,791,284)	(\$2,394,309,457)	(\$1,540,841,282)	-24,170
Idaho	(\$1,366,289,363)	(\$506,490,982)	(\$325,948,767)	-8,742
Illinois	(\$81,691,781,755)	(\$30,283,592,854)	(\$19,488,796,620)	-340,610
Indiana	(\$9,052,415,063)	(\$3,355,780,058)	(\$2,159,589,034)	-47,826
Iowa	(\$4,400,983,431)	(\$1,631,468,766)	(\$1,049,920,435)	-25,199
Kansas	(\$5,791,349,813)	(\$2,146,885,232)	(\$1,381,613,135)	-33,941
Kentucky	(\$5,429,514,465)	(\$2,012,750,878)	(\$1,295,291,899)	-34,455
Louisiana	(\$3,018,817,777)	(\$1,119,092,356)	(\$720,184,141)	-19,027
Maine	(\$436,867,658)	(\$161,949,244)	(\$104,221,315)	-3,086
Maryland	(\$48,812,041,681)	(\$18,094,892,349)	(\$11,644,842,755)	-209,333
Massachusetts	(\$38,298,578,581)	(\$14,197,493,747)	(\$9,136,698,855)	-158,478
Michigan	(\$12,152,044,992)	(\$4,504,829,923)	(\$2,899,052,124)	-58,111
Minnesota	(\$14,149,572,421)	(\$5,245,324,328)	(\$3,375,592,174)	-69,425
Mississippi	(\$1,857,912,191)	(\$688,738,269)	(\$443,232,747)	-13,371
Missouri	(\$7,422,517,722)	(\$2,751,568,148)	(\$1,770,752,641)	-39,598
Montana	(\$306,718,318)	(\$113,702,168)	(\$73,172,243)	-2,057
Nebraska	(\$2,716,063,658)	(\$1,006,859,738)	(\$647,957,617)	-15,428
Nevada	(\$30,789,500,017)	(\$11,413,837,018)	(\$7,345,295,830)	-130,094
New Hampshire	(\$2,845,975,420)	(\$1,055,018,743)	(\$678,950,011)	-14,913
New Jersey	(\$77,069,299,879)	(\$28,570,013,395)	(\$18,386,034,418)	-296,851
New Mexico	(\$5,804,563,255)	(\$2,151,783,527)	(\$1,384,765,399)	-34,969
New York	(\$91,354,554,048)	(\$33,865,635,694)	(\$21,793,995,502)	-391,465
North Carolina	(\$46,094,026,042)	(\$17,087,309,000)	(\$10,996,419,464)	-289,755
North Dakota	(\$175,459,742)	(\$65,043,892)	(\$41,858,546)	-1,029
Ohio	(\$12,878,292,102)	(\$4,774,053,721)	(\$3,072,309,236)	-71,482
Oklahoma	(\$1,849,189,061)	(\$685,504,557)	(\$441,151,714)	-13,371
Oregon	(\$10,800,573,180)	(\$4,003,831,888)	(\$2,576,638,305)	-55,025
Pennsylvania	(\$16,848,349,877)	(\$6,245,775,976)	(\$4,019,425,909)	-79,196
Rhode Island	(\$2,224,064,646)	(\$824,472,998)	(\$530,583,893)	-10,799
South Carolina	(\$5,616,679,423)	(\$2,082,133,957)	(\$1,339,942,900)	-34,455
South Dakota	(\$607,032,356)	(\$225,030,233)	(\$144,816,650)	-4,114
Tennessee	(\$12,105,960,888)	(\$4,487,746,292)	(\$2,888,058,071)	-74,053
Texas	(\$220,655,153,205)	(\$81,798,079,037)	(\$52,640,587,726)	-1,151,925
Utah	(\$7,439,152,135)	(\$2,757,734,617)	(\$1,774,721,029)	-40,626
Vermont	(\$794,829,439)	(\$294,647,645)	(\$189,618,453)	-5,143
Virginia	(\$35,580,245,924)	(\$13,189,792,878)	(\$8,488,199,934)	-179,767
Washington	(\$46,201,518,506)	(\$17,127,157,048)	(\$11,022,063,399)	-203,420
West Virginia	(\$84,893,265)	(\$31,470,400)	(\$20,252,558)	-514
Wisconsin	(\$8,294,961,478)	(\$3,074,987,848)	(\$1,978,887,151)	-41,655
Wyoming	(\$619,202,672)	(\$229,541,836)	(\$147,720,060)	-3,600
<b>US</b>	<b>(\$1,757,488,165,125)</b>	<b>(\$651,510,530,119)</b>	<b>(\$419,275,093,239)</b>	<b>-8,101,324</b>

SOURCE: US Multi-Regional Impact Assessment System, The Perryman Group



**Table 3**  
**The Dynamic Effects of Removing Undocumented Workers from the US Economy Assuming Adequate Time For Market Adjustments (Based on Size of the US Economy in 2008)**  
**Detailed Industrial Category**

Category	Total Expenditures	Gross Product	Personal Income	Employment (Permanent Jobs)
Agricultural Products & Services	(\$38,064,696,733)	(\$9,897,698,743)	(\$6,740,883,805)	-107,841
Forestry & Fishery Products	(\$757,787,228)	(\$440,066,741)	(\$163,213,225)	-2,121
Coal Mining	(\$955,540,801)	(\$274,588,626)	(\$289,352,120)	-1,962
Crude Petroleum & Natural Gas	(\$17,080,121,259)	(\$3,742,218,447)	(\$1,725,906,642)	-8,487
Miscellaneous Mining	(\$941,822,314)	(\$418,937,782)	(\$246,270,004)	-2,737
New Construction	(\$20,711,708,109)	(\$8,857,028,926)	(\$7,298,743,467)	-103,095
Maintenance & Repair Construction	(\$20,415,946,570)	(\$10,902,132,795)	(\$8,984,036,422)	-126,901
Food Products & Tobacco	(\$47,281,607,693)	(\$10,950,837,355)	(\$5,594,211,066)	-93,631
Textile Mill Products	(\$792,636,765)	(\$188,088,398)	(\$159,140,330)	-3,650
Apparel	(\$4,892,152,739)	(\$2,704,738,879)	(\$1,370,532,505)	-37,408
Paper & Allied Products	(\$4,014,806,840)	(\$1,813,602,079)	(\$819,916,163)	-12,475
Printing & Publishing	(\$5,212,809,445)	(\$2,622,771,384)	(\$1,711,942,044)	-29,099
Chemicals & Petroleum Refining	(\$33,800,950,598)	(\$6,337,807,025)	(\$2,975,968,399)	-22,040
Rubber & Leather Products	(\$3,845,524,479)	(\$1,615,484,342)	(\$944,404,747)	-18,839
Lumber Products & Furniture	(\$3,861,587,699)	(\$1,393,548,460)	(\$993,523,137)	-20,699
Stone, Clay, & Glass Products	(\$4,330,097,221)	(\$2,169,408,791)	(\$1,134,609,882)	-18,521
Primary Metal	(\$3,756,848,535)	(\$1,037,720,539)	(\$772,428,371)	-11,640
Fabricated Metal Products	(\$7,837,569,214)	(\$2,925,695,491)	(\$1,888,832,787)	-32,397
Machinery, Except Electrical	(\$5,036,964,725)	(\$2,045,072,861)	(\$1,461,008,566)	-15,578
Electric & Electronic Equipment	(\$5,719,984,453)	(\$3,282,356,617)	(\$1,962,304,451)	-16,321
Motor Vehicles & Equipment	(\$2,322,273,987)	(\$532,387,826)	(\$345,874,125)	-4,903
Transp. Equip., Exc. Motor Vehicles	(\$1,889,691,305)	(\$925,388,222)	(\$604,708,402)	-7,244
Instruments & Related Products	(\$744,228,719)	(\$321,822,756)	(\$244,614,610)	-3,138
Miscellaneous Manufacturing	(\$1,329,270,119)	(\$521,876,222)	(\$359,944,031)	-5,723
Transportation	(\$20,597,943,024)	(\$13,763,370,586)	(\$9,102,602,012)	-126,020
Communication	(\$11,289,869,210)	(\$6,961,428,975)	(\$2,972,057,517)	-26,322
Electric, Gas, Water, Sanitary Services	(\$25,958,608,740)	(\$5,864,202,731)	(\$2,558,981,639)	-10,855
Wholesale Trade	(\$23,837,232,940)	(\$16,129,718,043)	(\$9,300,539,085)	-104,169
Retail Trade	(\$44,262,483,566)	(\$36,676,960,025)	(\$21,931,649,333)	-575,857
Finance	(\$12,823,965,149)	(\$5,364,828,503)	(\$3,123,955,222)	-27,816
Insurance	(\$9,154,547,523)	(\$5,567,832,461)	(\$3,328,669,532)	-40,099
Real Estate	(\$54,762,422,163)	(\$11,271,982,961)	(\$1,816,160,896)	-16,145
Hotels, Lodging Places, Amusements	(\$8,879,502,653)	(\$4,554,274,866)	(\$2,987,761,829)	-72,920
Personal Services	(\$10,613,777,368)	(\$6,497,938,586)	(\$5,055,501,283)	-85,331
Business Services	(\$33,862,354,463)	(\$21,004,018,337)	(\$17,133,896,859)	-208,814
Eating & Drinking Places	(\$26,511,823,284)	(\$15,525,973,661)	(\$8,260,646,789)	-374,049
Health Services	(\$15,906,877,207)	(\$11,049,545,720)	(\$9,342,493,254)	-154,562
Miscellaneous Services	(\$14,891,095,001)	(\$6,197,106,339)	(\$5,372,374,938)	-128,523
Households	(\$2,620,109,036)	(\$2,620,109,036)	(\$2,564,667,498)	-177,529
<b>Total</b>	<b>(\$551,569,238,877)</b>	<b>(\$244,970,570,138)</b>	<b>(\$153,644,326,987)</b>	<b>-2,835,463</b>

SOURCE: US Multi-Regional Impact Assessment System, The Perryman Group

**Table 4**  
**The Dynamic Effects of Removing Undocumented Workers from the US Economy Assuming Adequate Time For Market Adjustments (Based on Size of the US Economy in 2008)**  
**Results by State**

State	Total Expenditures	Gross Product	Personal Income	Employment (Permanent Jobs)
Alabama	(\$2,585,043,796)	(\$1,148,105,456)	(\$720,086,050)	-17,819
Alaska	(\$484,679,894)	(\$215,262,748)	(\$135,011,728)	-1,980
Arizona	(\$26,367,929,099)	(\$11,710,889,893)	(\$7,345,012,076)	-140,324
Arkansas	(\$797,675,930)	(\$354,274,882)	(\$222,199,450)	-6,660
California	(\$164,210,352,786)	(\$72,931,376,352)	(\$45,742,197,642)	-717,352
Colorado	(\$8,003,676,983)	(\$3,554,703,881)	(\$2,229,492,649)	-39,738
Connecticut	(\$5,635,678,721)	(\$2,502,995,693)	(\$1,569,866,488)	-24,119
Delaware	(\$948,966,878)	(\$421,468,314)	(\$264,342,837)	-6,300
District of Columbia	(\$1,104,347,817)	(\$490,478,249)	(\$307,625,526)	-5,400
Florida	(\$43,894,913,840)	(\$19,495,217,122)	(\$12,227,303,518)	-262,436
Georgia	(\$21,327,151,201)	(\$9,472,109,793)	(\$5,940,860,298)	-132,460
Hawaii	(\$2,027,023,944)	(\$900,269,950)	(\$564,644,849)	-8,460
Idaho	(\$428,795,595)	(\$190,442,639)	(\$119,444,679)	-3,060
Illinois	(\$25,638,109,422)	(\$11,386,752,269)	(\$7,141,714,566)	-119,214
Indiana	(\$2,841,005,581)	(\$1,261,786,749)	(\$791,386,393)	-16,739
Iowa	(\$1,381,202,519)	(\$613,438,794)	(\$384,745,770)	-8,819
Kansas	(\$1,817,554,435)	(\$807,237,450)	(\$506,295,326)	-11,879
Kentucky	(\$1,703,996,204)	(\$756,802,396)	(\$474,662,710)	-12,059
Louisiana	(\$947,424,317)	(\$420,783,210)	(\$263,913,143)	-6,660
Maine	(\$137,106,335)	(\$60,893,565)	(\$38,192,142)	-1,080
Maryland	(\$15,319,147,641)	(\$6,803,752,035)	(\$4,267,279,542)	-73,267
Massachusetts	(\$12,019,607,447)	(\$5,338,314,543)	(\$3,348,164,413)	-55,467
Michigan	(\$3,813,791,945)	(\$1,693,834,103)	(\$1,062,364,351)	-20,339
Minnesota	(\$4,440,694,990)	(\$1,972,262,967)	(\$1,236,993,554)	-24,299
Mississippi	(\$583,086,267)	(\$258,968,349)	(\$162,423,665)	-4,680
Missouri	(\$2,329,479,385)	(\$1,034,600,650)	(\$648,896,398)	-13,859
Montana	(\$96,260,329)	(\$42,752,471)	(\$26,814,138)	-720
Nebraska	(\$852,408,110)	(\$378,583,296)	(\$237,445,566)	-5,400
Nevada	(\$9,662,961,849)	(\$4,291,648,458)	(\$2,691,700,634)	-45,533
New Hampshire	(\$893,179,554)	(\$396,691,275)	(\$248,802,801)	-5,220
New Jersey	(\$24,187,391,937)	(\$10,742,439,526)	(\$6,737,604,808)	-103,898
New Mexico	(\$1,821,701,335)	(\$809,079,229)	(\$507,450,481)	-12,239
New York	(\$28,670,669,222)	(\$12,733,614,732)	(\$7,986,460,024)	-137,013
North Carolina	(\$14,466,126,922)	(\$6,424,896,658)	(\$4,029,663,329)	-101,414
North Dakota	(\$55,066,201)	(\$24,456,764)	(\$15,339,161)	-360
Ohio	(\$4,041,716,988)	(\$1,795,063,330)	(\$1,125,854,821)	-25,019
Oklahoma	(\$580,348,604)	(\$257,752,460)	(\$161,661,065)	-4,680
Oregon	(\$3,389,646,682)	(\$1,505,456,834)	(\$944,215,062)	-19,259
Pennsylvania	(\$5,287,678,007)	(\$2,348,436,796)	(\$1,472,927,914)	-27,718
Rhode Island	(\$697,999,377)	(\$310,005,151)	(\$194,433,694)	-3,780
South Carolina	(\$1,762,735,964)	(\$782,890,712)	(\$491,025,173)	-12,059
South Dakota	(\$190,510,742)	(\$84,612,270)	(\$53,068,396)	-1,440
Tennessee	(\$3,799,328,932)	(\$1,687,410,589)	(\$1,058,335,555)	-25,919
Texas	(\$69,250,306,957)	(\$30,756,405,509)	(\$19,290,265,040)	-403,174
Utah	(\$2,334,699,922)	(\$1,036,919,267)	(\$650,350,623)	-14,219
Vermont	(\$249,448,888)	(\$110,788,695)	(\$69,486,120)	-1,800
Virginia	(\$1,166,487,236)	(\$4,959,414,978)	(\$3,110,520,485)	-62,918
Washington	(\$14,499,862,305)	(\$6,439,879,684)	(\$4,039,060,608)	-71,197
West Virginia	(\$26,642,862)	(\$11,832,997)	(\$7,421,597)	-180
Wisconsin	(\$2,603,286,713)	(\$1,156,207,753)	(\$725,167,770)	-14,579
Wyoming	(\$194,330,268)	(\$86,308,650)	(\$54,132,358)	-1,260
<b>US</b>	<b>(\$551,569,238,877)</b>	<b>(\$244,970,570,138)</b>	<b>(\$153,644,326,987)</b>	<b>-2,835,463</b>

SOURCE: US Multi-Regional Impact Assessment System, The Perryman Group



**Table 5  
Undocumented Workers by State**

<b>State</b>	<b>Employment (Permanent Jobs)</b>	<b>State</b>	<b>Employment (Permanent Jobs)</b>
Alabama	50,911	Montana	2,057
Alaska	5,657	Nebraska	15,428
Arizona	400,927	Nevada	130,094
Arkansas	19,027	New Hampshire	14,913
California	2,049,576	New Jersey	296,851
Colorado	113,537	New Mexico	34,969
Connecticut	68,910	New York	391,465
Delaware	17,999	North Carolina	289,755
District of Columbia	15,428	North Dakota	1,029
Florida	749,816	Ohio	71,482
Georgia	378,456	Oklahoma	13,371
Hawaii	24,170	Oregon	55,025
Idaho	8,742	Pennsylvania	79,196
Illinois	340,610	Rhode Island	10,799
Indiana	47,826	South Carolina	34,455
Iowa	25,199	South Dakota	4,114
Kansas	33,941	Tennessee	74,053
Kentucky	34,455	Texas	1,151,925
Louisiana	19,027	Utah	40,626
Maine	3,086	Vermont	5,143
Maryland	209,333	Virginia	179,767
Massachusetts	158,478	Washington	203,420
Michigan	58,111	West Virginia	514
Minnesota	69,425	Wisconsin	41,655
Mississippi	13,371	Wyoming	3,600
Missouri	39,598		
<b>US</b>	<b>8,101,324</b>		

**SOURCE: US Multi-Regional Impact Assessment System, The Perryman Group**

