



# **Where Did All the Migrant Farm Workers Go?**

Maoyong Fan and Jeffrey M. Perloff

## **Overview**

*Since the late 1990s, the share of agricultural workers who migrate within the United States fell by about 60%. On average over this period, one-third of the drop in the migration rate was due to changes in the demographic makeup of the workforce, while two-thirds was due to government and institutional changes in the market. However, in recent years, demographic changes were responsible for nearly half of the overall change.*

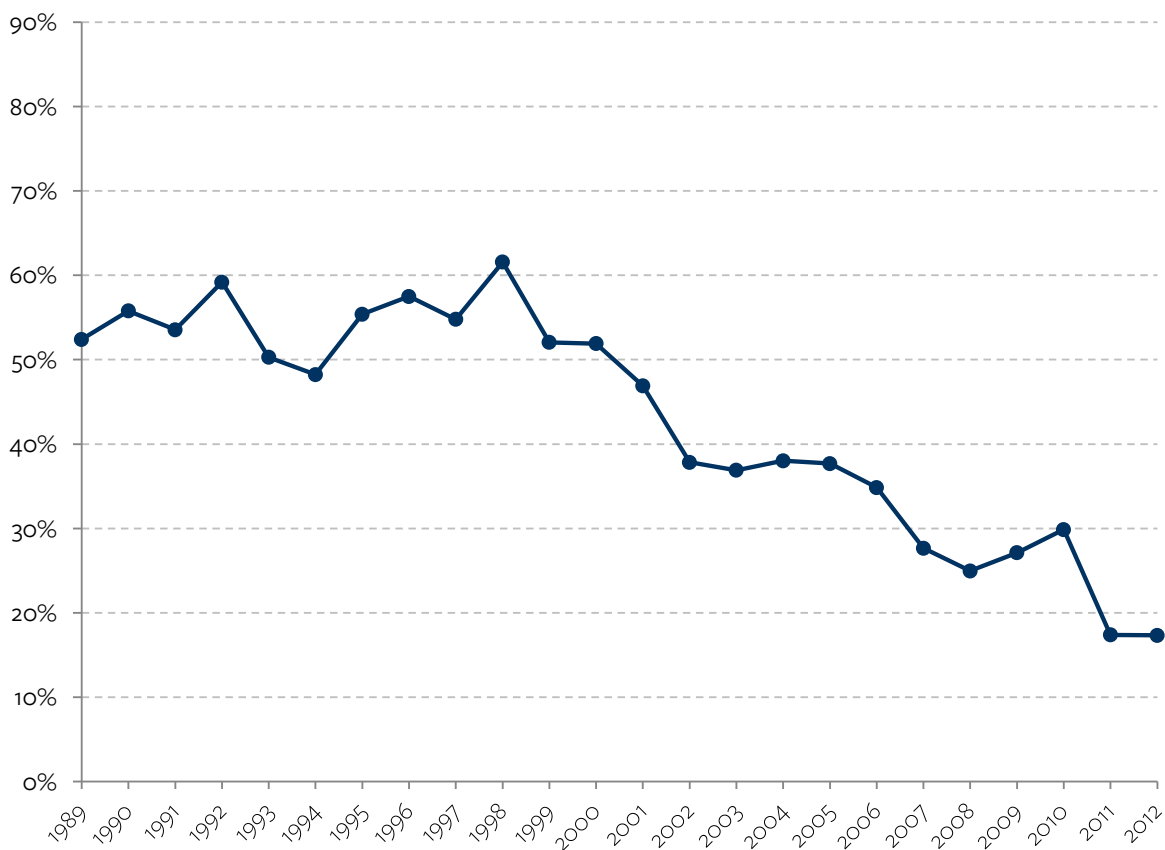
*This reduction in the number of migrant farmworkers increases the risk that fruits and vegetables will not be harvested before they spoil. To avoid this problem, farmers will switch crops, automate planting and harvesting, or take other actions to reduce the need for seasonal agricultural workers. Only a major change in our immigration and guest worker policies is likely to increase migration within the country and postpone automation.*

## 1. The decline in Farm Workers Migrations

Migrant farmworkers plant and pick most of the fruits and vegetables that we eat. Seasonal crop farmers, who employ workers only a few weeks of the year, rely on workers who migrate from one job to another within the United States. Because finding migrants to pick their crops before they spoil is becoming increasingly difficult, seasonal crop farmers are struggling.

From 1989 through 1998, roughly half of all seasonal crop farmworkers migrated at least 75 miles within the United States (see Figure 1). Since then, the share of workers who migrate has dropped by more than in half, hitting 17% in 2012.

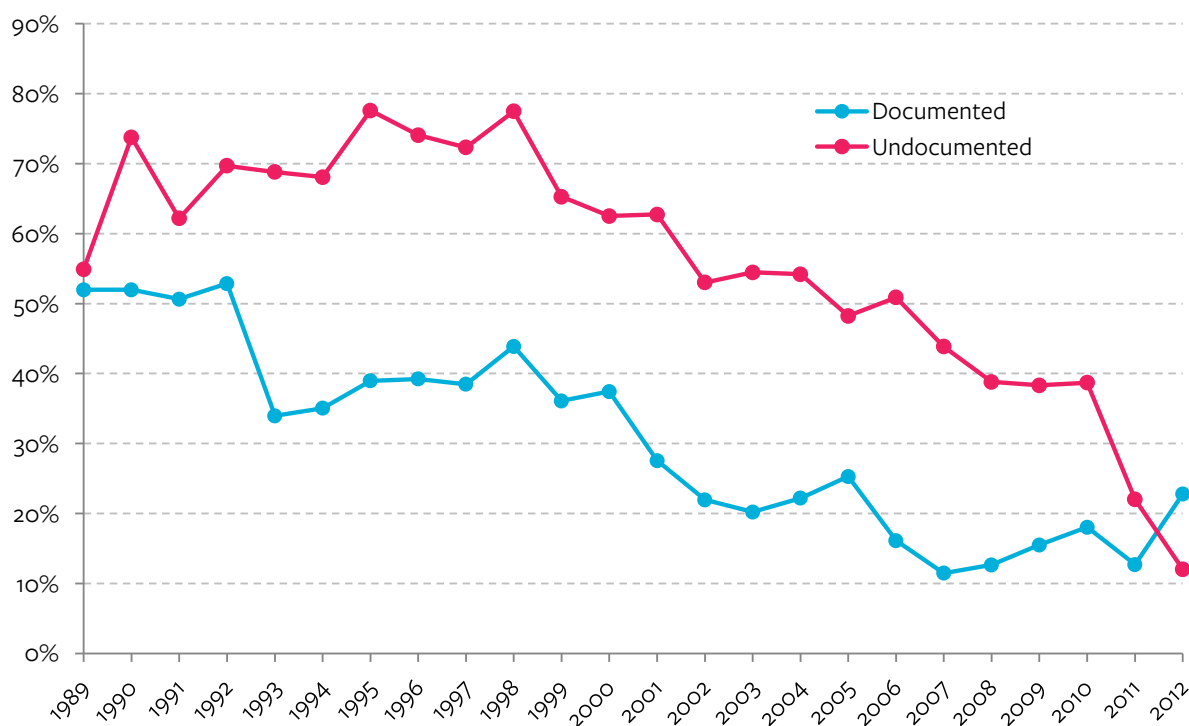
**Figure 1** Percentage of Farmworkers Who Are Migrants



Source: Authors' calculations using National Agricultural Worker Survey (NAWS) data.

The migration rates fell in all areas of the country and for most demographic groups. Figure 2 shows that migration rates fell for undocumented and documented workers (such as citizens, legal permanent residents, and people with other work authorization). On average over the entire period, a larger share of undocumented workers migrated than did documented workers. The migration rates fell for both groups since the late 1990s, but the rates for documented workers dipped in the early 1990s too.

**Figure 2** Migration Rates of Undocumented and Documented Workers



Source: Authors' calculations using National Agricultural Worker Survey (NAWS) data.

## 2. Why do Fewer Workers Migrate?

What explains this pronounced drop in migrants? The two main explanations are:

1. Governmental and economic changes in the United States and Mexico made immigration less attractive.
2. Demographic changes made farm workers less willing to migrate.

Governmental and economic changes reduced the number of undocumented immigrants from Mexico. After 9/11, new laws and greater enforcement increased the difficulty for undocumented workers (who are predominantly young and single) to cross the border.

These laws include the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, the Homeland Security Act of 2002, the USA Patriot Act of 2002, the Enhanced Border Security and Visa Entry Reform Act of 2002, the Intelligence Reform and Terrorism Prevention Act of 2004, the REAL ID Act of 2005, and the Secure Fence Act of 2006. Some undocumented workers who were already in the United States became more fearful of moving for work because of new federal, state, and local laws and increased resources for local immigration enforcement to apprehend them.

In addition, Mexicans are less likely to want work in U.S. agriculture than in the past due to a falling birth rate, an improving economy, and increased social welfare programs. The 1997 anti-poverty *Programa de Educación, Salud y Alimentación* (later renamed *Oportunidades*) in Mexico increased welfare in Mexico through education, health, and conditional cash transfer initiatives, which decreased the incentive for workers to cross the border. *Oportunidades* also increased agricultural production in Mexico.

**Table 1** Characteristics of Migrant and Non-Migrants

	<b>Migrants</b>	<b>Non-Migrants</b>
Age	32.78	35.54
Years of Education	6.38	7.66
Income, Last Year (\$ thousands)	11.26	16.87
Years of Farm Experience	9.00	11.70
Female	14%	28%
Hispanic	96%	76%
Undocumented Worker	49%	34%
English Speaker	19%	40%
Married	60%	62%
Spouse in Household	25%	54%
Children in Household	22%	48%
Skilled Worker	19%	25%
Employed by a Farm Labor Contractor	25%	16%
Number of Observations	12,509	24,566

Source: Authors' calculations using National Agricultural Worker Survey (NAWS) data.

On average over many years, migrants have different characteristics than non-migrants (see Table 1). Migrants are more likely to be undocumented, male, young, Hispanic, without a family or a home in the United States, and less likely to speak English. For example, since 1999, undocumented workers are 55% of U.S. migrant workers, but only 40% of non-migrants. Females are 15% of migrants, but 27% of non-migrants. Only a fifth of migrants speak English, compared to two-fifths of non-migrants.

### 3. Statistical Analysis

To analyze the cause of the reduced migration rate, we conducted a statistical analysis with Susan Gabbard and Anita Alves Pena (using data from 1989 through 2009).

We found that migration rates differ substantially with worker's marital status, gender, and other characteristics. All other characteristics the same, a female is 15 percentage points less likely to migrate than a male, which is a large difference given that the sample average probability of migrating is 53% in 1998. Hispanics are 15 percentage points more likely to migrate than are non-Hispanics. Skilled workers are 7% percentage points less likely to migrate than unskilled workers.

Married workers who do not live with their spouse in the United States are 19 percentage points more likely to migrate. However, married workers who live with their spouse in the United States are 10 percentage points less likely to migrate. Similarly, workers are 11 percentage points less likely to migrate if they live with their children. Presumably, these family-oriented workers see themselves as having a higher opportunity cost of migrating. In contrast, married workers who are not living with their families are more likely to migrate—perhaps so that they can send more money home to their families in Mexico or other countries of origin.

Using those estimates, we calculated how much of the drop in the migration rate was due to each of two effects. On average over the entire period, one-third of the reduction in migration rates was due to changes in the demographic makeup of the work force. However, the share of the drop due to change in the demographic composition increased in recent year, hitting 45% in 2009. The agricultural workforce became older, more experienced in farm work, less likely to be employed by a farm labor contractor, and less likely to be Hispanic. Workers also were more likely to be married and living with immediate family members such as a spouse and children in the United States, and more likely to have a home or a car in the United States.

The remaining two-thirds of the drop in the migration rate was the result of fundamental changes in the market due to governmental, institutional, and economic changes.

## 4. Conclusions and Policy Implications

Agricultural migration rates within the United States plummeted in this century. This decrease was due to changes in the composition of the agricultural labor force and governmental, institutional, and economic changes.

Because migrants play a crucial role in many labor-intensive, seasonal, agricultural crops, this dramatic decrease in migration rates has significantly reduced the ability of agricultural labor markets to respond to seasonal shifts in demand during the year. If the current downward trend of migration continues and no alternative supply (such as from a revised H-2A program or earned legalization program) becomes available, farmers will probably experience greater difficulty finding workers during planting and harvesting seasons.

Our results address a major concern that granting legal status to undocumented agricultural workers will reduce their willingness to migrate. We find that legal permanent residents were more likely to migrate than were undocumented workers during the 1999–2008 period. Apparently, stricter border enforcement during this period made undocumented workers less willing to migrate within the United States because they feared such a migration would raise the odds of being caught.

Nonetheless, one-time legalization programs—such as the 1986 Immigration Reform and Control Act’s Seasonal Agricultural Workers (SAWs) program—will not allow the United States to close its Mexican border and at the same time avoid a farm labor problem. Because agricultural work is physically demanding, it is difficult to remain in agriculture over one’s working life. Moreover, as agricultural workers put down roots in the United States, living here with their families and amassing assets, they become less willing to migrate. The experience of seasonal agricultural workers who gained documentation under IRCA shows that, while they continued to migrate for years after they obtained legal status, eventually, they began to migrate less and leave the farm labor force. A seasonal worker who was 22 in 1986 would be 45 in 2009. By 2009, the farm labor force had few seasonal workers (and few farmworkers over age 45). Thus, to maintain a large and flexible agricultural worker force, a steady stream of new, young workers is required—whether it be from a porous border, temporary work permits, or a perpetual program of earned legalization through farm work.

Farmers have responded to the reduction of migrants in several ways, they have changed cropping patterns, worked harder to retain workers, made jobs more attractive to female workers, adopted labor-saving technologies, and increasingly turned to guest worker programs. During this time, the number of agricultural guest workers more than doubled from 20,192 in 1998, to 44,847 in 2009 and almost doubled again to 85,248 in 2012.

Already farmers in a variety of crops are turning to labor-saving mechanized solutions to deal with their problem. If this trend continues, the demand for seasonal agricultural workers may decline substantially.

---

— *Maoyong Fan is an Associate professor in the Department of Economics at Ball State University.*

Contact: [mfan@bsu.edu](mailto:mfan@bsu.edu)

— *Jeffrey M. Perloff is a professor in the Department of Agricultural and Resource Economics at UC*

*Berkeley. Contact: [jperloff@berkeley.edu](mailto:jperloff@berkeley.edu)*



The Institute for Research on Labor and Employment (IRLE) is an organized research unit at the University of California, Berkeley. Since its creation in 1945, IRLE has brought together faculty from several academic departments and supported multidisciplinary research about labor and employment relations. IRLE sponsors several community service programs and research centers: the Center for Labor Research and Education (Labor Center), the Center for the Study of Child Care Employment, the Center on Wage and Employment Dynamics, the Don Vial Center on the Green Economy, California Public Employee Relations, and the Food Labor Research Center.

The complete IRLE policy brief series is available at:  
[irle.berkeley.edu](http://irle.berkeley.edu)

The series is edited by Claire Montialoux, economics researcher at IRLE. Contact: [claire.montialoux@berkeley.edu](mailto:claire.montialoux@berkeley.edu)

Previous policy briefs:

- **The New California Earned Income Tax Credit**, by Claire Montialoux and Jesse Rothstein, Dec 2015
- **Can School finance reforms improve student achievement?**, by Julien Lafortune, Jesse Rothstein, and Diane Schanzenbach, March 2016
- **The Supplemental Nutrition Assistance Program : A central component of the social safety net**, by Hilary Hoynes, April 2016