

**Immigration Reform:
Implications for Farmers, Farm Workers and Communities**
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June 23, 2011

SUMMARY	2
AGJOBS 2011	3
LEGALIZATION.....	4
H-2A CHANGES.....	5
ELIGIBILITY ESTIMATES	7
US MIGRATION AND FARM LABOR TRENDS	8
MIGRATION PATTERNS.....	9
NAWS FARM LABOR PATTERNS.....	11
IMMIGRATION REFORM OUTLOOK	13
INDUSTRY AND WORKER PERSPECTIVES	15
CANADIAN TEMPORARY WORKER PROGRAMS	18
IMMIGRATION AND COMMODITIES	20
CALIFORNIA	21
FLORIDA	22
WASHINGTON.....	24
COLORADO	25
NEW YORK.....	27
MIGRANTS AND COMMUNITIES	28
NORTH CAROLINA	28
NEW YORK.....	29
PENNSYLVANIA	30
WASHINGTON.....	31
TRADE AND MIGRATION	32
FRUIT AND VEGETABLE TRADE	32
MODELING THE EFFECTS OF IMMIGRATION REFORMS	34
ESTIMATING THE VALUE OF LEGAL STATUS	35
MAY 12-13, 2011 AGENDA	35

This project was supported by the Agriculture and Food Research Initiative of the National Institute of Food and Agriculture, Grant # 2011-67023-30088, with additional support from the Farm, Giannini and MacArthur Foundations, and JSRI, SRDC, and the CRCIG. The views and opinions reported here are those of the authors, and do not necessarily reflect the views of the sponsoring organizations.

Summary

About half of US crop workers have been unauthorized for the past decade, according to DOL's National Agricultural Workers Survey (www.doleta.gov/agworker/naws.cfm). The AgJOBS immigration reform proposal, pending since 2000, would provide a path to legal status for some unauthorized farm workers and revise the H-2A temporary worker program to make it easier for farm employers to employ legal guest workers.

Immigration is transforming rural and agricultural areas throughout the United States. Newcomers from Mexico and Central America fill many of the seasonal jobs on especially fruit, vegetable and horticultural (FVH) crop farms as well as year-round jobs in many dairy and livestock operations and farm-related jobs in food processing and meatpacking. Most Hispanic immigrants remain in seasonal farm and farm-related jobs for less than a decade before moving up the US job ladder, often finding jobs in construction or services. When the US economy booms and unemployment falls, as in 2006-07, the revolving door that brings Latino immigrants into farm jobs and moves them on to nonfarm jobs turns faster, generating farm labor shortage complaints. During the 2008-09 recession, some ex-farm workers moved down the job ladder, returning to the farm work force after losing construction and other nonfarm jobs. There were few farm labor shortage complaints.

On May 12-13, 2011, researchers met with Congressional and industry, union, and community leaders in Washington DC to discuss:¹

1. How immigration is affecting rural and agricultural areas, immigration reform proposals, and the perspectives of employers, unions and advocates on proposed immigration reforms
2. The impacts of immigrant farm workers on agriculture in particular states and commodities
3. The impacts of immigrants and their children in rural and agricultural communities

The papers and Powerpoints are at: <http://migration.ucdavis.edu/cf/>

Three major changes were discussed. First, the production of FVH commodities is expanding, as consumers in the US and abroad demand more fruit and nut, vegetable and melon, and greenhouse and nursery crops (horticultural

¹Until 2004, seminars examining the "changing face" of rural America were held in areas attracting immigrants to fill farm jobs. These changing-face seminars brought researchers together with farm employers, community leaders, and migrant advocates and included field trips that followed the migration of workers from fields to settlement. The visits began with the employers whose jobs attracted migrants, turned next to the mayors, police chiefs and teachers who act as bridges between established residents and newcomers, and concluded with migrants and migrant advocates. On two occasions, March 1998 and April 2002, seminars in Washington DC allowed researchers to report the findings of these field visits to policy makers. Since 2006, the changing face seminars have been held in Washington DC.

specialties). Each of these FVH segments had sales of about \$20 billion in 2010, and combined FVH sales of \$60 billion were almost a third of the \$195 billion in crop sales. There have been important labor-saving changes in some commodities, including increasing mechanization in raisin harvesting, so that concern about the availability of farm workers may be shifting from fruits and vegetables to greenhouses, nurseries, and dairies, where labor-saving changes may be slower. This shifting demand for hired farm labor may change the debate on immigration reform and agriculture, since e.g. horticulture and dairies are more widely dispersed throughout the US than fruits and vegetables.

Second, the farm labor market is appears to be stabilizing amidst rising H-2A admissions. NAWS data suggest that the average number of weeks of farm employment and average hourly earnings rose despite the 2008-09 recession. There are several potential explanations for improved farm worker conditions, including fewer new unauthorized entrants because of stepped up border and interior enforcement, success in pressuring some farmers to raise wages (as with the CIW in Florida tomatoes), and farm employers perceiving productivity advantages with less worker turnover. The H-2A program is expanding to new areas and commodities including Washington apple growers, California-Arizona vegetable growers, and producers of fruits and vegetables in the south-central states in response to immigration enforcement actions and a quest for “loyal” workers.

Third, there appears to be little prospect for comprehensive immigration reform in 2011-12 that includes legalization of unauthorized foreigners. Instead, the House is likely to enact a mandatory E-Verify bill, requiring all US employers to submit data on newly hired workers to DHS databases; employers risk fines if they continue to employ workers with suspect documents. One result may be less stable employment for unauthorized workers and their families, which restrictionists hope will encourage some to leave the US. Many researchers note increased fear in agricultural communities resulting from I-9 audits that prompt some workers to circulate from one employer to another as they obtain “new” false documents and more state and local police providing information on suspected unauthorized foreigners to DHS, which can lead to detention and deportation. They emphasize the struggles of “mixed families,” unauthorized parents with US-born and US-citizen children.

This report summarizes the discussion. It was distributed to participants for comments and corrections, but was not formally approved by them. In some cases, presentations were supplemented with materials from Rural Migration News (<http://migration.ucdavis.edu/rmn>)

AgJOBS 2011

The major immigration reform proposal that would affect farm workers, farm employers and rural communities is the Agricultural Job Opportunity Benefits and Security Act (AgJOBS), a compromise negotiated by worker advocates and farm employers in December 2000. AgJOBS would legalize unauthorized foreigners who have done farm work and make it easier for farm employers to

hire guest workers under the H-2A program. AgJOBS was included in the 2006 comprehensive immigration reform bill approved by the Senate. It has not been re-introduced in the 2011-12 Congress.

AgJOBS has two major components: legalization of unauthorized farm workers and H-2A reform.

Legalization

The May 2009 version of AgJOBS (S1038; HR 2414) would have allowed up to 1.35 million unauthorized farm workers who did at least 150 days or 863 hours of farm work in the 24-month period ending December 31, 2008 to apply for Blue Cards that would allow them to work and live in the US.² The House version of AgJOBS also would have allowed unauthorized workers to qualify for Blue Cards by doing 150 days or 863 hours of farm work or by earning at least \$7,500 from farm work during the 24-month qualifying period.

Unauthorized farm workers would apply for Blue Cards via government-approved qualified designated entities, BIA-recognized organizations, or licensed attorneys, including legal aid programs funded by the federal government; the sign-up period would begin seven months after AgJOBS is enacted and last for 18 months. Workers would present evidence of their qualifying farm work, such as employer-issued payroll records, time cards and other work-related documents, or obtain affidavits from contractors or fellow workers that, "by a preponderance of the evidence," demonstrate they did sufficient farm work. After paying an application fee and a \$100 fine, they would obtain Blue Cards with personal biometric data.

Blue Card holders could work in any US job and travel freely within the US and enter and leave the US. Unauthorized family members of Blue Card holders in the US could obtain a "derivative" probationary legal status that would allow them to obtain work permits. Family members of Blue Card holders would not have to do farm work, and they could travel in and out of the US with their derivative legal status.

Blue Card holders could earn a regular immigrant status for themselves and their families by doing additional farm work in one of three ways:

- (1) performing at least 150 days (a day is at least 5.75 hours) of farm work a year during each of the first three years after the enactment of AgJOBS;
- (2) doing at least 100 days of farm work a year during the first five years; or
- (3) working at least 150 days in any three years, plus 100 days in a fourth year (for workers who do not do 150 days in the first three years).

Employers of Blue Card holders must provide Blue Card employees with written records of their farm work and submit a copy to DHS (employers may be fined up to \$1,000 for not providing employment records to DHS). Blue Card holders would be eligible for job-related benefits such as unemployment insurance and the earned income tax credit, but may not be eligible for means-tested benefits such as Food Stamps.

² H-2A workers who did sufficient qualifying work could qualify for Blue Card visas, but not H-2A workers admitted after the enactment of AgJOBS.

To become regular immigrants within seven years of first receiving Blue Cards, currently unauthorized foreigners would have to document their continued farm work, show that they filed income tax returns, and pay an application fee and a \$500 fine; their family members would become regular immigrants at the same time. Blue Card holders could receive up to 12 months credit for farm work they could not perform due to pregnancy, disease or injury to themselves or a minor child, severe weather conditions that reduced the availability of farm jobs, or because they were fired without “just cause” by a farm employer and unable to find another farm job despite a “reasonable job search.” Administrative mechanisms would be established to allow pregnant, injured, and unjustly fired Blue-Card workers to receive appropriate work credit.

H-2A Changes

The H-2A program allows US farm employers to request certification from the US Department of Labor (DOL) to have foreign workers admitted “temporarily to the United States to perform agricultural labor...of a temporary or seasonal nature.” DOL certification involves, inter alia, ensuring that two conditions are satisfied:

- (1) “there are not sufficient workers who are able, willing, and qualified, and who will be available at the time and place needed, to perform the labor or services involved in the employer petition and,
- (2) the employment of the alien in such labor or services will not adversely affect the wages and working conditions of workers in the United States similarly employed.”

DOL certified over 8,000 US farm employers to fill a record 100,000 farm jobs with foreign workers holding H-2A visas in FY09, meaning that perhaps 10 percent of long-season jobs on US farms were filled by H-2A workers. Farmers in the 2007 Census of Agriculture reported hiring 911,000 workers directly to work on their farms at least 150 days, and many H-2A workers are in the US for 10 months.

AgJOBS would make it easier for farmers to employ H-2A guest workers. Most of the changes to the H-2A program would begin one year after the enactment of AgJOBS, but the 2009 version of AgJOBS would have immediately frozen the Adverse Effect Wage Rate at its 2008 level for three years (\$10.16 per hour in California and \$9.20 in North Carolina).

AgJOBS would change the H-2A program in three major ways. First, attestation would replace certification, effectively shifting control of the border gate from the US Department of Labor to employers, who would make assertions (assurances) to DOL that they have vacant jobs, are paying at least the minimum or prevailing wage, and will comply with other H-2A requirements. Employer job offers would have to be filed at least 28 days before workers are needed (down from the current 45 days) and posted on the internet rather than circulated via the interstate clearance system, the current practice. Not more than 14 days before the employer-specified starting date, farm employers must advertise for US workers.

DOL would review employer assurances for "completeness and obvious inaccuracies" before approving them within seven days. Employers would recruit H-2A workers abroad who would arrive and go to work. DOL enforcement of employer assurances would respond to complaints of violations of H-2A regulations, such as the three-fourths guarantee (the employer must offer work for at least $\frac{3}{4}$ of the work period specified in the employer's application). Employers must hire local workers (including Blue Card holders) who respond to recruitment ads until 50 percent of the work period is completed. Finally, employers must reimburse 100 percent of the transportation costs of workers who complete the job.

The second change involves housing. Rather than the current requirement that employers provide free housing to H-2A and out-of-area US workers, AgJOBS would allow farm employers to pay a housing allowance of \$1 to \$2 an hour, depending on local costs to rent two-bedroom units that are assumed to house four workers. State governors would have to certify that there is sufficient rental housing for the guest workers in the area of employment before employers could pay a housing allowance rather than provide free housing.

Third, the Adverse Effect Wage Rate, the minimum wage that must be paid to legal guest workers and any US workers employed alongside them, would be frozen at 2008 levels and studied (www.foreignlaborcert.doleta.gov/adverse.cfm). If Congress failed to enact a new AEW within three years, the AEW would be adjusted on the basis of the three-year change in the Consumer Price Index and eventually rise with the CPI by a maximum of four percent a year.

The H-2A program currently allows only employers offering seasonal farm jobs to participate, although H-2A sheep and goat herders have been allowed to work in the US continuously for up to three years as an exception to this seasonal-job rule. Under AgJOBS, dairy workers would be added to the sheep and goat exception, so that dairies could employ H-2A workers for up to three years. Dairy farms accounted for 15 percent of direct-hire labor expenses in the 2007 Census of Agriculture, about the same as fruit and nut farms, and reported hiring 176,000 workers, two-thirds for more than 150 days on their farms.

Employer job orders become contracts that H-2A and US workers can sue to enforce. Currently, H-2A workers can sue to enforce these contracts in state courts; under AgJOBS, they could sue employers for contract violations in federal courts. If workers file suit to enforce their contracts, growers can request mediation from the Federal Mediation and Conciliation Service, and the parties must attempt to resolve their dispute over a 90 day period before the suit can proceed.

Under AgJOBS, H-2A workers would be offered protections comparable to those laid out in the Migrant and Seasonal Agricultural Worker Protection Act of 1983 (www.dol.gov/esa/whd/regs/statutes/0001.mspa.htm), including assurances that the vehicles used to transport workers were safe. Even though many H-2A recruiters are or should be licensed as FLCs, AgJOBS, unlike MSPA, does not require the disclosure of wages and working conditions to workers at the time and place of recruitment.

Many requirements of the H-2A program would continue under AgJOBS, including requirements that: (1) employers must reimburse H-2A (and US workers from beyond commuting distance) for their transportation and subsistence costs to reach their farms if they complete their work contracts, (2) employers must hire US workers who seek jobs until half of the work contract period is completed, and (3) employers must guarantee work to H-2A and US workers for at least $\frac{3}{4}$ of the contract period.

Eligibility Estimates

How many unauthorized workers would qualify for legalization under AgJOBS? If two-thirds of the estimated 1.4 million workers employed on crop farms sometime during the year are unauthorized, and a third of the estimated 429,000 livestock workers are unauthorized, there were a total 1.1 million unauthorized farm workers in 2007.

Farm workers qualify for legalization if they did at least 863 hours or 150 days of farm work in the 24 months ending December 31, 2008. Based on NAWS data, about 80 percent of unauthorized crop workers would qualify and, if all of the unauthorized livestock workers qualify, then 880,000 unauthorized workers could be legalized.

There are no national estimates of the number of persons employed for wages on US farms. Instead, a USDA survey of farm employers reports employment and average hourly earnings, and a DOL survey of farm workers reports worker characteristics (including legal status) and earnings. USDA's NASS (<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1063>) estimates employment on US farms four times a year. It reported an annual average 884,500 workers hired directly by farmers in 2002, when the average hourly earnings of field and livestock workers were \$8.17 (an additional 250,000 workers were brought to farms by contractors and custom operators). In 2007, NASS estimated that an annual average of 739,800 workers were hired directly by farmers, down 16 percent, and the average hourly earnings of field and livestock workers were \$9.49, up 16 percent (an additional 325,000 workers were brought to farms by contractors and custom operators).

DOL's NAWS (www.doleta.gov/agworker/naws.cfm) interviews several thousand workers employed on crop farms each year. The NAWS finds that three-fourths of crop workers were born in Mexico and most are unauthorized. The NAWS survey of workers finds lower hourly earnings than the NASS survey of employers, in part because supervisors are excluded from the NAWS but included in the NASS.

The number of farm workers eligible for legalization under AgJOBS can be estimated by dividing the crop and livestock labor expenditures of farmers in each state by the average hourly earnings of farm workers in that state. Dividing almost \$18 billion in crop labor expenditures by average field worker earnings, which ranged from \$8.30 to \$10 an hour across NASS regions in 2007, yields 1.9 billion hours worked on crop farms. Dividing these 1.9 billion hours by the 1,384

average hours worked by crop workers (40.7 hours a week, according to the NASS survey of employers, and 34 weeks of farm work a year, according to the NAWS survey of crop workers), yields 1.4 million crop workers.

If the \$8.5 billion in livestock labor expenditures are divided by employer-reported average hourly earnings, and assuming that 70 percent of the combined field and livestock wage in each state is attributed to crop workers and 30 percent to livestock workers, there were 873 million hours worked on livestock farms in 2007. Livestock workers were employed more hours than crop workers, an average of 2,035 hours a year based on the NASS report of 40.7 hours a week times 50 weeks. The result is an estimated hired livestock work force of 429,000.

No one knows how many farm workers are unauthorized. If two-thirds of the 1.4 million crop workers and one-third of the 429,000 livestock workers were unauthorized, there were 1.1 million unauthorized farm workers in 2007. If 70 percent of crop workers and 40 percent of livestock workers were unauthorized, about 63 percent of US hired workers, some 1.2 million, were unauthorized.

Unauthorized farm workers would be eligible for legalization under AgJOBS if they worked at least 863 hours or 150 days in the 24 months ending December 31, 2008. NAWS data suggest that 80 percent of the crop workers were employed more than 74 days. Using the 2/3 crop and 1/3 livestock unauthorized shares, and assuming that 80 percent of the 923,000 unauthorized crop workers qualified and all of the 142,000 unauthorized livestock workers qualified yields 880,000 eligible unauthorized farm workers.³

US Migration and Farm Labor Trends

The papers in this section explore US immigration patterns over the past several years and farm worker characteristics between 1989 and 2009. There are three major points:

1. the number of unauthorized foreigners dropped by a million between 2008 and 2010, largely because new inflows stopped as the US unemployment rate doubled, not because unauthorized foreigners in the US left.
2. almost half of households headed by unauthorized foreigners are couples with children. There were 4.5 million US-born children in such households, and only a million unauthorized children; in states such as Arizona, almost 20 percent of K-12-aged children have unauthorized parents.
3. wages and incomes for crop workers improved significantly during the 2007-09 period as a result of rising wages and more weeks of farm work. DOL's National Agricultural Workers Survey (NAWS) is the only federal survey that determines the legal status of the persons interviewed. The NAWS found a declining share of unauthorized crop workers in recent

³ For some unauthorized workers, it may be easier to find a W-2 statement that shows farm earnings during the previous year(s) rather than evidence of farm days worked. Based on NAWS estimates of worker earnings, W-2 statements with combined 2007 and 2008 earnings of \$7,000 or more should have included almost all eligible farm workers.

years, 48 percent between 2007 and 2009. Worker characteristics have not changed significantly over the past two decades. Most US crop workers are men born abroad with less than nine years schooling, but in recent years weeks of farm work and incomes have risen, so that less than a quarter of crop worker households had incomes below the poverty line in recent years, down from over half in the mid-1990s.

Migration Patterns

The 40.2 million foreign-born residents in March 2010 were 13 percent of the 309 million US residents. They included 15 million naturalized US citizens, 12 million legal immigrants, 11.2 million unauthorized, and 1.5 million legal temporary foreign residents.⁴

There has been enormous growth in the immigrant population. In 1970, the 10 million immigrants were less than five percent of US residents; in 2010, the immigrant share of US residents had increased by 2.5 times to 13 percent, reflecting a quarter century of high immigration.

The largest single source of immigrants is Mexico. In 1970, when Mexico's population was 48 million, there were 760,000 Mexican-born US residents. By 2010, when Mexico had 112 million residents, there were 12 million Mexican-born US residents--more than 10 percent of those born in Mexico have moved to the US.

Between 2007 and 2010, the reduced number of unauthorized foreigners in the US dropped, reflecting the 2008-09 recession. Passel estimated 11.1 million unauthorized foreigners in 2005, a peak of 12 million in 2007, 11.6 million in 2008, 11.1 million in 2009, and 11.2 million in 2010. Mexicans accounted for 75 percent of the one million increase in the stock of unauthorized foreigners between 2005 and 2007, but a smaller share of the drop since then. There were about 6.3 million Mexican-born unauthorized in 2005, 7 million in 2007, and 6.5 million in 2009.

About 17 percent of the 10 million immigrants admitted between 2000 and 2009 were from Mexico, about 30 percent of foreign-born US residents are Mexican, and almost 60 percent of unauthorized foreigners are Mexican. The number of Mexican-born people moving to the US doubled from 300,000 a year in the mid-1990s to 600,000 in 2000 before falling to between 400,000 and 500,000 a year between 2004 and 2007; the number of Mexicans settling in the US fell to less than 200,000 in 2009 and 2010. Over a quarter of the Mexican-born US residents arrived between 2000 and 2005, an average 525,000 a year.

Legal Mexican immigration is not sensitive to the US business cycle, but unauthorized Mexican migration declines when the US unemployment rate increases. Mexicans continue to enter and leave the US in 2011, but inflows of Mexicans have dropped by more than half since 2006. Declining inflows rather

⁴ Of the 39.4 foreign-born in 2010, 12.4 million or 31 percent were born in Mexico, 10.2 million or 26 percent were born in Asia, and 9.4 million or 24 percent were born in the Caribbean, Central and South America.

than more returns explain recent stability in the number of Mexican-born US residents.

Almost half of the unauthorized foreigners in the US are in families with children, more than double the share of US households with children (46 percent versus 21 percent). Most unauthorized foreigners are adults (there are 1.1 million unauthorized children), and most unauthorized adult men and women in the US have children. Indeed, in unauthorized families, there are more than four US-born and US-citizen children (4.5 million total) for every unauthorized child (1.1 million), meaning that 80 percent of children in families with unauthorized parents were born in the US. About seven percent of school-aged children in the US have unauthorized parents; the share of K-12 children with unauthorized parents is 20 percent in some states.

The number of US-born children with unauthorized parents has been increasing by 350,000 a year (representing eight percent of US births), while the number of unauthorized children in these families has decreased.

Unauthorized foreigners are dispersed throughout the US. In 1990, California had 42 percent of the estimated 3.5 million unauthorized foreigners in the US, and the top six states had 80 percent. By 2010, California's share had fallen to 23 percent of 11.2 million unauthorized foreigners, and the same six traditional immigration states had only 60 percent of the total unauthorized population. In many "new growth" states for immigrants in the Midwest and southeast, most recent immigrants are unauthorized.

Foreign-born adults in the US, when arrayed by their level of education, have an hourglass or barbell shape. About 32 percent of US-born adults 25-64 had a college degree or more in 2010 and 7.4 percent did not complete high school. Among the unauthorized in the US less than a decade, 18 percent completed college and 43 percent did not complete high school.

Unauthorized men are more likely than US-born men to be in the labor force, 93 percent of the unauthorized 18 to 64 year olds in 2010 versus 81 percent of the US-born men were employed or looking for work. The reverse is true for unauthorized women—72 percent of the US-born 18 to 64 year women are in the labor force, versus 54 percent of the unauthorized women 18 to 64. Unauthorized workers were 5.3 percent of the US labor force in 2010, but were 21 percent of those employed in construction, nine percent of the workers in services, and eight percent of those employed in production and repair occupations.

CPS data suggest that 25 percent of those employed in farming occupations are unauthorized; DOL NAWS data for the smaller group of crop workers suggest 50 percent are unauthorized. CPS data suggest that 15 to 20 percent of workers in cleaning and construction occupations, and 10 to 15 percent of those employed in food preparation and production occupations, are unauthorized.

Households headed by unauthorized foreigners have low per capita incomes because they have larger families and lower earnings than other US households. The median income of households headed by US-born persons was \$50,000 in 2009, and \$35,000 for households headed by unauthorized foreigners. Households with US-born heads had an average 2.4 persons and a per capita income of \$28,500; those with unauthorized heads averaged 3.4 persons for a per capita income of \$15,100. About 62 percent of unauthorized foreigners did not have health insurance in 2010; 24 percent of children in households headed by an unauthorized foreigner lacked health insurance, and 48 percent of unauthorized children did not have health insurance.

NAWS Farm Labor Patterns

Since 1989, the US Department of Labor's National Agricultural Workers Survey (NAWS) has been interviewing farm workers; over 54,000 workers have been interviewed in two decades.⁵ The NAWS was originally designed to determine the supply or availability of farm workers, since IRCA required monitoring the farm labor market to determine if there were farm labor shortages.

There were no farm labor shortages during the 1989-93 period for which the NAWS was mandated. The NAWS continued to interview workers employed on US crop farms and today generates socioeconomic data on workers employed on US crop farms.

Carroll, Georges, and Saltz reported that about half of the crop workers interviewed since the mid-1990s have been unauthorized (NAWS is the only federal survey that determines the legal status of respondents). The share of farm workers who are unauthorized rose from 14 percent in the early 1990s to peak at 54 percent in 2000 and fell to 48 percent in recent years. Meanwhile, the share of crop workers who are US citizens fell from 43 percent in the early 1990s to a low of 20 percent in 2000, and rose to 33 percent in recent years.

Most crop workers are not migrants—defined as those who moved at least 75 miles to work in agriculture, including from a home in Mexico to a home in the US. A third of crop workers satisfied this definition in recent years. And most were not follow-the-crop migrants, meaning they moved from a US home base to work for wages on a crop farm at least 75 miles away (when USDA analyzed CPS data in the past, its definitions of migrants were more restrictive, requiring farm workers to cross county or state lines and stay away from a US home overnight to do farm work for wages).

Most hired workers on crop farms were born in Mexico, about two-thirds between 2007 and 2009. However, the share of Mexican-born workers has fallen slightly, from a peak of almost 80 percent in the late 1990s. Between 2007 and 2009, almost 30 percent of crop workers were born in the US or Puerto Rico.

⁵ Interviewers ask employers for permission to interview workers, who are paid \$20 to answer NAWS questions. About 69 percent of farm employers allow NAWS interviewers to talk to their employees, and about 92 percent of workers selected agree to answer NAWS questions.

Among foreign-born farm workers, the share in the US for more than a decade has been rising, from about 45 percent to 55 percent between 2005 and 2008, which helps to explain the rising average age of farm workers to 36 in 2008. The share of foreign-born workers in the US less than four years peaked at almost 50 percent in the late 1990s.

Mexican-born farm workers traditionally came from west central Mexican states such as Jalisco, Michoacán, and Guanajuato; about half were from these states in the early 1990s. The share of US crop workers from west central Mexico has been falling, while the share from southern Mexican states such as Guerrero, Oaxaca, and Chiapas has been rising, to about 20 percent after 2005.

The average years of schooling of all crop workers rose from seven years between the early 1990s and 2002 to eight years since 2005. About half of crop workers have less than seven years schooling. A third of crop workers speak no English, 30 percent (presumably including most of the US-born) speak English well, and a third speak a little English. However, almost half of foreign-born farm workers in the US at least 20 years speak English well.

About 60 percent of crop workers are married, and almost all married farm workers are parents. A quarter of crop worker families are mixed, meaning they include members with legal and unauthorized status, mainly unauthorized parents and US-born children.

A quarter of the crop workers interviewed have been in the farm work force 20 or more years, and half have at least 10 years of US farm work experience. A third of crop workers today, down from half in the late 1990s, have less than four years of US farm work experience.

This picture of a more stable crop work force in recent years is reinforced by the rising share of workers who report only one farm employer during the year; over 80 percent reported only one farm employer between 2007 and 2009, when workers averaged 35 weeks of farm work. Most of the crop workers interviewed for the NAWS, almost 90 percent between 2007 and 2009, reported being hired directly by a crop farmer; only 12 percent were hired by labor contractors, down from 27 percent in the late 1990s. Similarly, over 80 percent of crop workers between 2007 and 2009 reported being paid hourly wages, versus 11 percent paid piece rate wages.

The NAWS interviews primarily workers employed in FVH crops: 35 percent in fruits and nuts between 2007 and 2009, 23 percent in vegetables, and 20 percent in horticulture, or 78 percent in FVH, the same FVH share as in the late 1990s (but with more in fruits and fewer in horticulture). By task when interviewed, a quarter of the workers between 2007 and 2009 were engaged in pre-harvest tasks, another quarter were harvesting, and another quarter were engaged in “technical tasks,” primarily work in greenhouses.

Workers interviewed by the NAWS reported average wages of \$9 an hour in 2009, about \$1.50 less than the average \$10.50 reported by employers to the

NASS. After being flat between 2003 and 2008, real wages reported by workers to NAWS rose in 2009 despite the recession.

The NAWS collects personal and family earnings by income ranges, such as \$12,500 to \$14,999, the average farm earnings of workers interviewed between 2007 and 2009. At the average wage of \$9 an hour, \$13,500 in farm earnings suggest 1,500 hours of work. Average family income from farm and nonfarm sources was \$17,500 to \$19,999 between 2007 and 2009. A quarter of families had incomes below the poverty line and a quarter reported receiving needs-based public assistance.

The NAWS paints a picture of a crop work force experiencing rising wages and more weeks of farm work conditions despite the 2008-09 recession. The share of US-born workers is almost 30 percent and rising, weeks of farm work and real earnings are rising, and average farm and family income is rising. For example, the share of workers interviewed by the NAWS with family incomes below the poverty level has fallen sharply, from 56 percent in the mid-1990s to 23 percent between 2007 and 2009. The NAWS puzzle is that the educational levels of farm workers remain low, suggesting that lack of English and lack of schooling do not prevent farm wages, weeks of work, and income from rising.

Immigration Reform Outlook

Escobar and Gonzalez reported that the Obama Administration supports comprehensive immigration reform, including stepped up border and interior enforcement to detect and deter illegal immigration as well as a path to legalization for most of the unauthorized foreigners in the US. House Republicans prefer an enforcement-only approach to unauthorized migration. A bill was approved by House Republicans in 2005 and a bill requiring all US employers to participate in E-Verify may be approved in summer 2011.

Advocates of comprehensive immigration reform met almost weekly with President Obama in spring 2011. Obama repeated his commitment to comprehensive immigration reform in Florida on April 29, 2011 and called for Republicans to support comprehensive reform in El Paso May 10, 2011 because the Mexico-US border is now secure. Obama's spring 2011 activities are widely seen in many media reports as an effort to shift blame for the failure to enact comprehensive immigration reform to Congressional Republicans, who continue to assert that enforcement must come before legalization.

Escobar reviewed Obama's efforts to achieve comprehensive immigration reform, while Gonzalez noted the personal involvement of USDA Secretary Vilsack in the push for immigration reform. Both emphasized that President Obama hopes there will be "bubble-up" calls from around the US for immigration reform based on the notion that comprehensive immigration reform will bolster the economic recovery. President Obama believes that the American public is more prepared to endorse comprehensive immigration reform to strengthen the US economy than many members of Congress.

The US deports or removes about 400,000 foreigners a year, of whom 35 to 40 percent have been convicted of serious US crimes. Some migrant advocates decry what they perceive to be the Obama Administration's belief that the path to amnesty requires more enforcement. They are especially critical of Secure Communities, which targets foreigners convicted of US felonies and results in what advocates consider too many "innocent" unauthorized foreigners being placed in removal proceedings.

Some asked President Obama to suspend the deportation of foreigners who might qualify for legalization under comprehensive immigration reforms, especially unauthorized foreigners brought to the US before age 16 who could, under the DREAM Act, become legal immigrants if they graduate from college or serve in the military. Advocates also asked that deportations of adults with US-born children be suspended, and that DHS to allow unauthorized foreigners in the US to adjust their status to legal immigrant without leaving the US. Some enforcement-minded House Republicans threatened to initiate impeachment proceedings if the Obama Administration suspends removals for large numbers of unauthorized foreigners.

Krikorian predicted there would be no comprehensive immigration reform in 2011-12, and that persuading Congress to approve reforms that include legalization would remain difficult. Krikorian emphasized that President Bush's active support for comprehensive immigration reform reduced opposition from enforcement-oriented Congressional Republicans; however, they are less likely to cooperate with President Obama. Krikorian predicted that, if the House approved an E-Verify bill requiring all US employers to submit information to verify that newly hired workers are authorized to work in the US, mandatory E-Verify could be coupled with legalization for unauthorized youth brought into the US before age 16 as proposed by the DREAM Act.

Sharry agreed that there is unlikely to be comprehensive immigration reform in 2011-12. He expressed hope that Obama was laying the ground work for action in 2013 after being reelected in 2012. Sharry emphasized the importance of the Hispanic vote to Democrats in particular races in the mountain states, and noted that immigration is the number one issue for Hispanics in some polls. Sharry expressed disappointment that Obama has expanded both I-9 audits and the Secure Communities program.

Enforcement-minded Congressional representatives want to avoid a repeat of IRCA in 1986, where legalization occurred first and poorly enforced employer sanctions did not deter unauthorized entries. The question is whether any new comprehensive immigration reform will include triggers that make legalization contingent on the effectiveness of enforcement or whether there will be some kind of TPS granted to unauthorized foreigners when a comprehensive immigration reform bill that includes new enforcement measures is enacted.

Krikorian's vision for comprehensive immigration reform is an attrition-through-enforcement strategy to reduce the number of unauthorized foreigners by half or more; there could, in such a scenario, eventually be legalization for five million

or fewer unauthorized foreigners. On the other hand, if the stock of unauthorized foreigners, which fell from about 12 million to 11 million during the 2008-09 recession, does not continue falling during the economic recovery, there could be Congressional efforts to repeal birthright citizenship. One scenario is a China moment (Republican President Nixon visited China in 1972) that would have a conservative Republican President convincing restrictionists that border and interior enforcement is effective, paving the way for the legalization of fewer unauthorized in exchange for reduced legal immigration.

Krikorian was not sympathetic to the argument that the US must import farm workers in order to have US-produced food for security and safety reasons, pointing to mechanization and trade as options that could provide Americans with safe and secure food. He emphasized that AgJOBS would not change the structure of the farm labor market, which he thinks explains the AgJOBS requirement that legalized farm workers must continue to do farm work to earn an immigrant status (an "indenture" to keep them from switching to nonfarm jobs). Both Krikorian and Sharry rejected the notion that transnationalism is making national borders and sovereignty obsolete.

Industry and Worker Perspectives

O'Brien in 2010 emphasized US agriculture's dependence on foreign-born farm workers. If the farm labor status quo persists, future farm workers will continue to grow up outside the US, and immigration and labor policies will determine how they enter the US and work on US farms.

Some of the 50 state farm bureaus that comprise the American Farm Bureau Federation have endorsed AgJOBS, but not the umbrella AFBF. The umbrella AFBF is critical of the current H-2A program, which it says "raises wages and benefits for foreign farm workers above market-clearing levels without leading to an increase in Americans seeking farm jobs." AFBF supports bills pending in Congress that would extend eligibility to employ H-2A workers to dairies and "streamline" the H-2A program.

The H-2A program allows farm employers who anticipate a shortage of workers to apply to DOL at least 45 days before the start date of the work. Employer applications to DOL include job offers that spell out job duties, wages, housing and other work-related items. Employers must try to recruit US workers while DOL reviews these job offers, which must satisfy DOL regulations for minimum wages and which become contracts between employers and any US and H-2A foreign workers hired.

Employers must offer and pay the higher of three wages: the federal or state minimum wage, the prevailing wage, or the adverse effect wage rate (AEWR), the average hourly earnings of non-supervisory crop and livestock workers reported by farm employers to USDA's NASS during the previous year. There are 18 AEWRs for 15 multi-state regions and three states (CA, FL, and HI), and in 2011 they ranged from \$9 to \$12 an hour. In FY10, 7,025 employers were certified by DOL to fill 94,200 jobs with H-2A workers; almost 99 percent of these

employer requests were approved (259 employer requests were denied and 136 employer requests were withdrawn).

More farmers are using H-2A “facilitators” to recruit and employ foreign workers under “master applications” that allow the H-2A workers to be moved from farm to farm. The AFBF believes that the H-2A program can expand to satisfy the needs of many farmers for seasonal workers. With more agents helping farmers to bring H-2A workers into the US, the cost of H-2A housing can be spread over more employers and H-2A workers can obtain sufficient work with several employers to satisfy work guarantees. O’Brien complained of the reversal of DOL’s 2009 H-2A streamlining regulations, and called for better data to determine the AEWR, more master H-2A applications, and sharper distinctions between major and minor violations of labor and H-2A regulations.

Regelbrugge, who supports enactment of AgJOBS, emphasized agriculture’s dependence on foreign workers and the high share of farm workers who are unauthorized; he cited examples of I-9 audits revealing that over 80 percent of workers in a nursery had presented false documents when hired. The spread of foreign-born and often unauthorized workers to dairies and other non-crop farms has spread interest in migration throughout US agriculture. A combination of the 2008-09 recession and fewer workplace raids reduced the intensity of farm employer lobbying for AgJOBS, but Regelbrugge believes that mandatory E-Verify without a “workable” H-2A program would be disastrous US agriculture, noting an increased number of H-2A applications rejected by DOL in 2011.

There may be more cooperation between worker advocates and the employer groups supporting AgJOBS than within agriculture, where farm employers are divided between those who want immigration reform to only “fix H-2A” and those who believe that fixing H-2A should be accompanied by legalization. Nicholson endorsed AgJOBS, but complained that the Obama Administration’s enforcement-first approach to immigration reform is causing havoc in agricultural communities. He cited the case of Gebbers Farms, a 5,000-acre apple and cherry operation in Washington that fired 550 workers after an I-9 audit at the end of 2009 and replaced the fired workers with 1,200 H-2A guest workers in 2010 (800 Mexicans and 400 Jamaicans).

As the H-2A program expands, Nicholson complained of recruitment abuses in migrant-sending countries. In many Asian countries that send workers abroad, recruiters must register with the Ministry of Labor, post bonds, and adhere to laws that restrict recruitment fees. Article 28 of the Mexican constitution has a similar requirement, but it is not enforced, and there is not a list of approved labor recruiters on the Mexican MOL web site. Nicholson noted that in Mexico, some recruiters require workers seeking H-2A visas to bid for jobs and lend the winners of these H-2A visa auctions the money to cover recruitment costs at high interest rates. As a result, many H-2A workers arrive in the US in debt, making them vulnerable to employer abuse.

Nicholson and Hitov agreed that farm worker welfare may be improved by involving retailers in the effort to raise farm wages and working conditions. The UFW partnered with Bon Appetit to examine farm worker laws and regulations in major fruit and vegetable producing states (www.bamco.com/page/114/farmworker-inventory.htm). Nicholson emphasized that working with food firms with “brands” to protect may be a visible and effective means of improving wages and working conditions for farm workers.

Hitov explained the human-rights approach of the Coalition of Immokalee Workers to improving conditions in the Florida tomato industry. Florida produces about 600,000 tons of mostly mature-green tomatoes between November and April (tomatoes are picked green and later ripened with ethylene to become the slicing tomatoes favored by the fast-food industry). Florida tomatoes, worth \$520 million in 2009, often compete with vine-ripened tomatoes imported from Mexico (the US imports about a million tons of fresh tomatoes a year from Mexico). Florida growers received about 30 percent of the average retail price of tomatoes in 2009.

The CIW began organizing to improve conditions in southwestern Florida tomato fields in the early 1990s, helping to identify cases of slavery among farm workers.⁶ For its first decade, the CIW pressured growers to improve wages and working conditions, demanding an increase in the piece rate from about \$0.40 per 32-pound bucket to \$0.75 a bucket (pickers say that dumpers are sometimes told to reject buckets that are not cupped, or filled with more than 32 pounds). This effort largely failed to change industry practices, and the CIW turned to the major buyers of tomatoes.

The CIW achieved a break-through when Yum Brands (Taco Bell) in 2005 agreed to pay growers an extra cent a pound for picking tomatoes. McDonald's (2007) raised the extra payment to 1.5 cents a pound, and Burger King (2008), and Subway (2008) signed similar 1.5 cent a pound agreements with the CIW, as did retailer Whole Foods (2008) and food service providers such as Aramark, Bon Appetit, Compass and Sodexo.

Most Florida tomatoes are produced by 16 major growers that include Ag-Mart Produce, Big Red Tomato Packers, Classie Growers, DiMare Co, Gargiulo, Harllee Packing, Nobles-Collier, Pacific Tomato Growers, Six L's Packing, Taylor & Fulton Packing, Tomatoes of Ruskin, and West Coast Tomato. These growers, organized into the Florida Tomato Growers Exchange, refused to pass on the extra one or 1.5 cents paid by tomato buyers to pickers until November 2010, and over \$2 million accumulated with the buyers to be distributed prospectively to pickers once the FTGE changed its position.

The CIW and the FTGE agreed in November 2010 on a Fair Food Code of Conduct that includes a complaint resolution system for employees, a

⁶There were nine prosecutions for slavery in Florida agriculture since 1990, including eight in tomatoes; there were seven convictions.

participatory health and safety program, and a worker-to-worker education process. Under the code, tomato growers are to create health and safety committees that include workers, allow the CIW to educate workers about their rights on company time, and create worker-initiated complaint-resolution procedures (both the CIW and tomato growers maintain toll-free numbers to receive complaints). Six growers with 5,000 employees are participating in 2010-11, and all 16 growers with 33,000 employees are expected to participate in 2011-12.

The CIW in 2011 is targeting supermarkets, especially Florida-based Publix. Supermarkets sell about half of Florida's tomatoes, and they have been reluctant to follow the fast-food industry in adopting and enforcing codes of conduct for their suppliers of fresh produce. The Ft. Myers News-Press recognized the CIW, which claims 4,400 members, the 2010 "person of the year" in southwestern Florida.

Canadian Temporary Worker Programs

Canada accepts more immigrants on a per capita basis than the US, 280,000 in 2010, equivalent to 0.85 percent of Canada's population. If the US had the same immigration rate, it would be accepting 2.6 million rather than 1.1 million immigrants a year. Canada traditionally accepted immigrants rather than guest workers but, at the behest of employers, expanded guest worker admissions in the past decade to over 200,000 admissions a year.

Preibisch explored the role of temporary foreign workers in the Canadian food system, which employed about two million people in 2009. As in other countries, almost all of Canada's food-system employment is outside of farming, in nonfarm industries that provide inputs to farming and transport, process, and sell farm products. Farm and food-system employment is concentrated in Canada's two largest provinces: Ontario (a third) and Quebec (a quarter). Alberta and British Columbia each account for an eighth of Canadian food-system employment.

There are two major programs that allow Canadian farm employers to hire guest workers. The SAWP has since 1966 admitted Caribbean workers to fill seasonal farm jobs, and since 1974 Mexican workers (www.hrsdc.gc.ca/eng/workplaceskills/foreign_workers/sawp.shtml). The Pilot Project for Occupations Requiring Lower Levels of Formal Training (NOC C&D Pilot) has admitted guest workers for farm and other low-skill work since 2002, and the Agricultural Stream of the NOC C&D Pilot came into effect in 2011 (www.hrsdc.gc.ca/eng/workplaceskills/foreign_workers/Agricultural/directives.shtml). Between 2002 and 2008, the number of guest workers admitted under the NOC C&D Pilot rose from 101,300 to 251,200; most fill nonfarm jobs.

The most significant differences between the SAWP and the NOC C&D Pilot include:

- maximum guest worker length of stay, up to eight months for SAWP (most SAWP workers are in Canada 20 to 22 weeks) versus up to two years for NOC C&D Pilot (with a two-year renewal possible),
- the right of individuals to return to Canada, indefinitely for SAWP and a maximum two-four year contracts for NOC C&D Pilot
- the relationship with sending countries. The SAWP is governed by bilateral MOUs, and recruitment is overseen by government agencies in both countries, while the NOC C&D Pilot is a unilateral program that allows Canadian employers to recruit guest workers anywhere (most employers use private recruiters abroad)
- Canadian farmer eligibility, with SAWP and the Agricultural Stream of the NOC C&D Pilot limited to FVH crops and tobacco and sod, while the NOC C&D Pilot is open to all farm employers, including livestock
- SAWP allows farm employers who pay for worker transportation to Canada to deduct from worker wages half of the airfare to get to Canada (typically C\$630) and requires employers to offer housing to workers at no charge, while the Agricultural Stream of the NOC C&D Pilot allows employers to require guest workers to cover their transport and to charge up to C\$30 a week for housing

SAWP is the major program providing foreign workers to agriculture. Entries of SAWP workers rose from about 16,000 in 2000 to a peak 24,000 in 2008 before falling slightly in 2009.⁷ Admissions under the NOC C&D Pilot to fill jobs in agriculture and food processing were less than 2,500 in 2005, rose to a peak 10,700 in 2008, and fell to about 9,750 in 2010, including 6,000 farm workers and 1,100 food processing workers. Many of the workers admitted under the NOC C&D Pilot to fill farm jobs are from Guatemala, the Philippines, and Thailand. In Quebec, it appears that Guatemalan workers admitted under the NOC C&D Pilot are replacing Caribbean and Mexican workers admitted under the SAWP.

The 2006 Census of Agriculture reported that Ontario had 57,200 farms,⁸ including 20,800 that hired workers and paid C\$1.1 billion in wages. Most of the 2.3 million weeks of farm work in Ontario, about 60 percent, were done by year-round workers. Full-time equivalent employment on Ontario farms was about 44,000.

Forth explained that Canadian residents fill 85 percent of the 102,000 jobs in Ontario horticulture, and that the 15,228 workers hired by 1,329 Ontario farm employers were critical to the economic viability of agriculture. The SAWP program includes protections for Canadian workers, requiring farm employers to seek Canadian workers before receiving permission to hire foreign workers, to provide at least 240 hours of work during the minimum six-week contract, and to provide approved housing.

⁷ Ontario tobacco farmers used to hire 3,000 to 4,000 workers under the SAWP each year. Tobacco employment has fallen sharply, but increased employment of SAWP workers in fruits and vegetables has kept overall SAWP numbers stable.

⁸ Canada's 229,400 farms in 2006 included 91,000 field crop farms, 61,000 beef farms, 12,500 fruit and vegetable farms, and 8,700 greenhouse and nursery operations.

Under the bilateral SAWP, sending-country governments play a role in the recruitment of guest workers and Caribbean and Mexican officials posted in Canada meet arriving guest workers and serve as a liaison while workers are in Canada. Ontario farm employers operate FARMS, which represents them in SAWP-related matters. About 80 percent of SAWP workers in Ontario return year-after-year (most are requested by name by Canadian employers), earning the Ontario minimum wage or the prevailing wage.

The NOC C&D Pilot primarily admits nonfarm guest workers to Canada to fill jobs in construction, services and other sectors. Employers may recruit low-skill workers in any country, and source countries include both SAWP-senders such as Mexico as well as Guatemala and other Central American countries and Asian countries.

Galvez emphasized that about 10 percent of harvest and greenhouse workers in Canadian agriculture are guest workers, but their contracts do not fully protect them. For example, there are no provisions for overtime pay, and SAWP workers who contribute two percent of wages to the Canadian social security system are not eligible for benefits. The work contracts that spell out wages and benefits also tie workers to particular Canadian employers, and the resulting lack of mobility can make migrants vulnerable. The federal government regulates migration into Canada, but labor law and social protection eligibility and enforcement are often provincial concerns.

Most SAWP seasonal workers return to Mexico each year as required (the maximum stay in Canada is eight months) in order to be selected to return the following year. Galvez argues that, for all its flaws, SAWP better protects guest workers than does the NOC C&D Pilot, which admits Guatemalans who may be displacing SAWP Mexicans. Private labor recruiters play major roles in the NOC C&D Pilot, making it hard to regulate the conditions under which guest workers are recruited.

Burrows noted that Canada traditionally recruited immigrants rather than temporary foreign workers, and that the SAWP was grandfathered into the GATS, which wants universal (open to workers from all countries) rather than bilateral programs. Carlos noted that the number of Mexicans going to Canada under the SAWP expanded from 203 in 1974 to 10,529 in 2000 and 15,809 in 2010, when 22 percent of SAWP workers had been going to Canada each season for 10 or more years.

Immigration and Commodities

The papers presented in this session reviewed the impacts of foreign-born workers on the competitiveness of agriculture, on wages and working conditions, and on agricultural communities.

California

Martin reviewed the California farm labor market over the past half century, highlighting three major changes. First has been the expansion of California's share of US farm sales with the rising share of high-value FVH commodities in the state's agricultural sales. In 2009, two-thirds of California's \$35 billion in farm sales are from FVH crops. The expansion of irrigated agriculture in the San Joaquin Valley in the 1950s and 1960s and the shift of citrus and dairy from southern California to the San Joaquin Valley accounts for half of the value of the state's farm production. Los Angeles county was the number one US farm county in 1950; Fresno county has been number one for the past half century.

Second, despite worries of labor shortages, sufficient farm labor was available to support California's expanding FVH agriculture. There were major labor worries in the early 1960s when the Bracero program ended, which prompted rising farm wages and a wave of mechanization symbolized by precision planters and herbicides, bulk bins in the fields, and the mechanical tomato harvester. By 1979, when the federal minimum wage was \$2.90 an hour, the general labor wage in UFW contracts was \$3.75 an hour, 30 percent more. The UFW demanded a wage increase to \$5.25 an hour at a time when piece rate earnings in California averaged \$5.15 (NASS); the equivalent today would be entry-level wages 30 percent higher than the federal minimum wage of \$7.25 an hour or \$9.40.

Rising unauthorized migration since the 1980s and the changing structure of agriculture (easy-to-boycott brand names avoided hiring farm workers) allowed real farm wages to fall toward the California minimum wage of \$8 an hour in 2011. Average hourly earnings are typically 20 to 25 percent more than the minimum wage.

Third, the farm labor market has a revolving door character, attracting newcomers to replace more experienced workers who move up the US job ladder, usually by finding nonfarm jobs. The revolving door slowed during the 2008-09 recession because of shrinking construction employment.

During the high-wage era of the 1960s and 1970s, the average tenure of workers employed in FVH agriculture lengthened as seasonality declined, benefits improved, and some large farms issued employee handbooks and established job ladders. Today, average tenure appears to be less than 10 years despite reduced seasonality and a higher share of workers employed in the almost year-round greenhouse and nursery and dairy sectors.⁹ If current trends continue, the seasonal farm workers of tomorrow will continue to grow up outside the US, and the children of farm workers educated in the US will shun their parents' jobs.

How would immigration reform affect FVH expansion, earnings just above the minimum wage, and the revolving-door farm labor market? First, the share of foreign-born workers, currently 75 percent on US crop farms and 90 percent on California crop farms, would likely remain stable or rise. As unauthorized

⁹ NAWS surveys find that 15 to 20 percent of crop workers are in their first year of US farm work.

workers who become legal immigrants under AgJOBS drift out of farm work, they are likely to be replaced by H-2A or unauthorized workers.

Second, replacement H-2A guest workers may be less “visible” if they are housed on the farms where they work or in nearby towns because most will be in the US without their families. Third, farm worker tenure may *increase* if H-2A workers who cannot earn immigrant status return year-after-year to fill US farm jobs. If AgJOBS is enacted, farm employers are more likely to invest in housing and the recruitment of H-2A workers than raise wages and benefits to retain newly legalized farm workers. Even without AgJOBS, the H-2A program expanded to about 100,000 farm jobs a year, equivalent to 10 percent of long-season jobs on US farms.

Florida

Florida has been one of the nation’s top 10 states in terms of farm sales, and second to California in the production of vegetables. However, in 2008 farm sales of \$8 billion ranked the state 16th in the US. The value of Florida fruits was about \$1.5 billion, Florida vegetables about \$2 billion, and Florida greenhouse and nursery commodities \$1.9 billion.

Florida was the largest user of H-2A workers for most of the period between the mid-1940s and mid-1990s, importing about 10,000 workers from Jamaica each year to hand-cut sugar cane south of Lake Okachobee. After suits were filed alleging that the sugar mills underpaid H-2A cutters, the harvest was mechanized within five years. In 2010-11, over 80 percent of the 4,700 H-2A workers certified to be employed in Florida were in citrus.

Roka noted that Florida has had about 200,000 acres of vegetables for the past 15 years, with more acres of sweet corn in 2010, 45,000, than acres of mature-green tomatoes, 32,000. Vine-ripened roma and other tomato varieties are replacing mature greens, whose acreage is declining.

Mature-green tomatoes are sold in 25-pound cartons; the breakeven price in 2010-11 is estimated to be \$11.50 a carton, but the price jumped to \$35 a carton after a February 2011 freeze in Sinaloa, which produces mostly vine-ripened tomatoes. Freezes in southwestern Florida in January and December 2010 cost growers about \$150 million in lost sales; worker losses were about a quarter of grower losses.

The 16 major Florida tomato growers often operate in Florida and other states, extending their season by growing tomatoes along the eastern seaboard in the Carolinas and Virginia-Maryland. Tomato growers hire workers directly and via labor contractors, and some encourage workers to follow the ripening tomatoes from south to north. The Florida harvesting season is 20 to 30 weeks, generating \$6,000 to \$9,000 in seasonal earnings.

A mechanical harvester developed for California processing tomatoes was used to harvest mature green tomatoes in the 1970s, but lack of uniform ripening and

problems with bruising mean that all fresh-market tomatoes are hand harvested. Florida tomatoes are staked-- the vines grow up on a wooden stake-- making it harder to harvest tomatoes mechanically. Plant breeders are working on varieties that do not need to be staked, which could reduce facilitate mechanization.

The major recent labor-saving change is a mechanical aid that makes hand harvesters more efficient, a conveyor belt that moves slowly through the field and saves harvesters steps to dump their full buckets of tomatoes. The conveyor belt changes the pay system from an individual rate piece rate to a group piece rate.

Oranges are Florida's most important fruit, with sales of \$1.2 billion in 2007-08 from about 450,000 acres that produced 135 million 90-pound boxes of fruit; the largest 20 citrus growers account for about 60 percent of the state's acreage. Florida orange acreage is shrinking because of urbanization, hurricanes and disease (citrus canker and citrus greening).¹⁰ These non-labor factors have encouraged some growers in the urbanizing middle of the state to cease citrus production.

Florida's oranges, most of which are processed into juice, are mostly harvested by hand for piece rates of \$0.70 to \$0.90 per 90-pound box; with overhead and other costs, harvesting costs are about \$1.60 a box. Most workers harvest 8-10 boxes an hour, for hourly earnings just above Florida's minimum wage of \$7.31 in 2011. Most workers are employed about 1,500 hours or 33 weeks during the orange harvesting season, that is, the citrus picking season is longer than the vegetable season.

Mechanical harvesting of processing oranges costs about \$1.35 per 90 pound box, 16 percent cheaper than hand harvesting. However, less than 30,000 acres of Florida's oranges were harvested mechanically in 2009-10, largely because machines work best in new plantings designed for mechanical harvesting, acreage is decreasing, and workers have been available to hand-harvest oranges.¹¹ Other factors slowing mechanization include damage to trees, the fact that the machines do not pick clean enough to eliminate gleaners and reliance on one manufacturer, Oxbo. Six of the \$1.3 million machines were sold in 2006, and there have been no sales since.

The major factor encouraging the mechanization of Florida orange harvesting is the need to reduce labor costs due to Brazil's ability to produce oranges at a lower-cost. Further refinements in the machines plus EPA approval of abscission

¹⁰ HLB is a bacterial infection of trees; infected trees are detected and removed or given additional nutrients to survive despite the infection.

¹¹ A mandatory E-Verify provision was stripped from a May 2011 state immigration control law at the behest of Florida state Senator JD Alexander, CEO of agribusiness and land firm Alico. Alexander said Alico used E-Verify to check new hires, but E-Verify should not be mandatory for all Florida employers because of its "flaws." Alexander said: "if every employer in every area is required to use E-Verify, a lot of things in this country aren't going to happen," such as crops not getting harvested.

or loosening chemicals should increase the share of Florida oranges harvested mechanically.

Washington

Washington has required almost all farm employers to pay UI taxes on their workers' wages since 1990, and conducts a monthly survey of 1,800 farm employers to obtain employment and wage data for specific activities. One of the questions on the monthly survey deals with labor shortages, which peaked in summer 2007 when over six percent of farm employers reported labor shortages in June and September. In 2010, no Washington farm employers reported labor shortages in June and September.

Tree fruits are the major employers of hired farm workers in Washington. In 2009, the state's 2,200 tree and nut farm employers reported hiring 43,000 workers, and they were 70 percent of the 61,600 workers hired on the state's crop farms. Workers were employed a median 250 hours on tree and nut farms in 2009, suggesting an average \$2,900 in earnings at the median \$11.65 an hour, slightly below the median \$12 for all crop workers. Labor shortage survey and wage data do not suggest widespread labor shortages.

Washington is the major US producer of cherries and apples, both of which are hand harvested. Cherries are an expanding and highly profitable crop for growers, but poor weather reduced the size of the 2008 crop, from about 160,000 tons in 2007 to 100,000 tons in 2008. The average annual employment of seasonal workers in cherries has been falling, from 5,900 in 2006 to 5,000 in 2007 to 3,400 in 2008. Unlike 2006, when a late cherry harvest led to a 20 percent jump in the piece rate for picking cherries as apple growers competed for workers to thin their apple crop, there was no jump in cherry piece rates in 2008.

Stromsdorfer concluded that growers raised wages in 2007 to head off a shortage of farm workers. These wage increases stabilized Washington's farm labor supply despite fewer new entrants at a time of low unemployment. Exits from the farm work force likely began to slow late in 2007 because of the slowdown in construction.

Employment in apples rose as production jumped from 2.6 million tons in 2007 to 3.1 million tons in 2008. The average annual employment of seasonal workers in apples was almost 19,000 in 2008, up from 15,000 in 2007. In the major cherry and apple counties, unemployment rose significantly between 2007 and 2008, more than 0.5 percent in most major farming counties, and seasonal employment did not rise as much in 2008 as in 2007. Most labor market indicators point to more workers available to do the state's farm work in 2008 than in 2007.

Stromsdorfer noted that there is no official definition of labor shortage. The degree to which labor demand exceeds supply is often judged by trends in real wages—they should rise if the demand for labor exceeds the supply.

In 2007, it was hard to determine whether labor shortage complaints were due to fewer new-entrants or a rising demand for farm workers with e.g. expanded cherry production. However, in 2008, the demand for farm workers was stable, but the supply of workers increased, helping to explain falling real average hourly earnings in apples and cherries. The average hourly earnings of workers employed in apples were \$12.22 in 2007 and \$12.19 in 2008; for cherries, the drop was from \$16.89 to \$16.48. In real or inflation-adjusted terms, apple earnings have not risen for the past decade, while cherry earnings increased 40 percent.

Stromsdorfer concluded that rising unemployment added to the supply of farm workers in 2008, a year in which cherry production fell and apple production rose. An increased labor supply with a relatively stable demand meant stable or falling earnings. Over the past decade, real average hourly earnings have risen in cherries, but not in apples.

Stromsdorfer updated and extended this analysis of farm labor shortages. Average quarterly employment in Washington agriculture rose by almost 25 percent between 2002 and 2009, from about 67,000 to 83,000, and landscaping services employment expanded by a similar 25 percent, from 10,000 to 13,000 (after peaking at almost 15,000 in 2007-08). Unlike other industries that employ unauthorized workers such as residential construction, where employment peaked in 2007 and then declined sharply, employment in agriculture climbed steadily between 2002 and 2009 (health care had a similar steady employment expansion).

An analysis of earnings in agriculture and other industries employing unauthorized workers found very small increases in average annual real wages between 2002 and 2009. In all industries, real wages peaked at about \$38,000 in 2008 and fell slightly to \$37,400 in 2009. Real agricultural wages exhibited a similar trend, peaking at \$17,300 in 2008 and falling to \$16,700 in 2009. Two sectors that had annual wages lower than agriculture, accommodation and food services and janitorial services, did not experience significant wage drops between 2008 and 2009, when annual wages were \$13,400 and \$15,500, respectively. One reason is that Washington's minimum wage rose six percent, from \$8.07 in 2008 to \$8.55 in 2009, remained at \$8.55 in 2010, and rose to \$8.67 in 2011.

Stromsdorfer concluded that there were not significant farm labor shortages between 2002 and 2009. The 2008-09 recession shrank employment in construction and manufacturing, likely adding to the supply of farm workers. Employment in low-wage sectors, including agriculture, accommodation and food services, and janitorial services, expanded between 2002 and 2009, suggesting the absence of severe labor shortages that would have led to sharp increases in real wages.

Colorado

Colorado is primarily a livestock state—two-thirds of the \$6 billion in 2008 sales were livestock products. Colorado farmers had labor expenditures of \$391

million, according to the 2007 COA. The quarterly NASS survey of farm employers found that hired farm worker employment peaks in July at about 15,000, and almost all of these hired workers were employed on the responding farm 150 days or more.

Thilmany et al examined the Colorado nurseries and greenhouses that generate sales of about \$300 million a year. Including the larger sector of nursery and garden centers, landscape care and maintenance, and golf courses and florists, Colorado's "green industry" hired almost 35,000 workers and paid total wages of \$1.2 billion in 2006. Labor represents more than half of the costs in the green industry, and the sector's employees had average annual earnings of about \$35,300 in 2006.

By contrast, the state's nonfarm meatpacking industry employed 6,500 workers in 2006, paying total wages of \$210 million or about \$32,000 a year. JBS, the world's largest meatpacker, bought Swift Foods in 2007, in part because of losses linked to December 12, 2006 ICE raids that removed 252 unauthorized workers from the flagship plant in Greeley, which had a total 2,200 workers. Wages had already increased at the unionized plant, but to return to full production, Swift offered signing bonuses of up to \$1,500 for those who referred workers who stayed on the job at least several months.

Some of those who replaced the unauthorized workers at JBS-Swift Greeley were refugees and other foreigners legally in the US. In 2008, JBS-Swift fired over 100 Somali Muslims after a dispute over prayer time during the Islamic holy month of Ramadan. The normal dinner break for the second shift was 8 or 8:30 pm; the Somalis wanted it moved to 7:30 pm, just after sundown. A compromise 7:45 pm dinner break that would also end the shift brought a counter protest by Latinos because they would lose pay for the shorter workday. In the end, the plant did not change its dinner schedule, and the Somalis lost their jobs. The EEOC sued JBS-Swift on August 31, 2010 for not accommodating the prayer needs of Somali Muslims at its Greeley plant in Colorado and Grand Island plant in Nebraska. The EEOC alleged that JBS-Swift "engaged in a pattern or practice of religious discrimination" by failing to reasonably accommodate its Muslim employees to allow them "to pray according to their religious tenets."

About 20 percent of Colorado's five million residents are Hispanic. Weld county, the major farm county in the state, has almost 30 percent Hispanic residents. The Weld county sheriff and district attorney began their own version of immigration enforcement in October 2008, searching the records of Amalia's Translation and Tax Services in Greeley to find individuals using false social security numbers. According to DA Ken Buck (who ran for a US Senate seat in 2010 and lost), the average return among the 1,300 suspect returns that were seized showed \$800 in taxes paid but, because of exemptions and earned income and child care tax credits, about \$2,000 in refunds.

The sheriff used these tax return data to make arrests for identity theft, and noted that many of those arrested worked at the JBS-Swift plant in Greeley. These unauthorized workers usually used other people's Social Security numbers to get

hired at JBS-Swift, but used separate Individual Taxpayer Identification Numbers to pay their taxes (about \$50 billion in US income taxes was paid by persons using ITINs, available to those who cannot get SSNs, between 1996-2003)

The ACLU sued the sheriff and district attorney, and a state judge on April 13, 2009 ordered a halt to the local enforcement actions, concluding that the sheriff did not have probable cause to seize the tax returns. The judge likened what was called “Operation Numbers Game” to taking medical records from a doctor’s office because one patient was a suspected drug user. IRS records are confidential, and the sheriff was told to return the tax returns or destroy them.

Before the use of the returns for identity theft enforcement was stopped, 70 people were arrested. Even though the US Supreme Court ruled in May 2009 that unauthorized workers cannot be arrested for identity theft unless they knowingly used another person’s SSN, those arrested in Weld county are likely to be deported by immigration judges who use different standards than criminal court judges.

Colorado is an aggressive user of the H-2B program, which admits seasonal workers to fill nonfarm jobs primarily in landscaping and mountain resorts.¹² It is also a growing user of the H-2A program, 237 employers were certified to fill 1,925 jobs with H-2A workers in FY07. A few farmers, mostly in the San Luis Valley, the largest alpine valley in North America, have been especially vocal about lack of labor to harvest vegetables. In response, the state experimented with using prisoners as farm workers.¹³

In May 2008, the Colorado legislature approved HB 1325 to create a five-year Nonimmigrant Agricultural Seasonal Worker Pilot Program. Under HB 1325, the state Department of Labor and Employment (www.coworkforce.com/Emp/msfw_guestworker.asp) helps farmers, for a fee of \$100 per worker, to obtain DOL certification to employ H-2A workers by listing the fees charged by “pre-qualified” or screened private agencies to recruit H-2A workers. Some farmers checked the list to find private agencies without paying the \$100 per worker fee.

New York

Maloney reported the results of a 2009 survey of 933 New York fruit, vegetable and dairy farms that found entry-level wages of \$8.25 to \$8.50 an hour, and \$10 an hour for experienced workers; New York's minimum wage was \$7.25 an hour in 2009. Most of NY’s 5,000 dairy farmers would like immigration reform to legalize their current workers, but not necessarily put them on a path to US citizenship. A few dairies reportedly refuse to hire Hispanic workers.

¹² In 2009, the leading occupations for H-2B certifications were landscaping and groundskeeping, (re)forestry workers, and housekeepers. The states with the most H-2B certifications were Texas, Florida, Colorado, and Virginia.

¹³In 2007, farm employers paid the CO Department of Corrections \$9.60 an hour for the inmates (including payroll taxes), and the inmates got \$1 to \$4 a day.

Maloney's presentation focused on dairy farms. Nationally, dairy farms hired an estimated 138,000 full-time equivalent workers in 2008, including 41 percent born in Mexico. Dependence on Hispanic and immigrant workers increases with farm size, so that two-thirds of US milk may be produced with Hispanic or immigrant workers.

The 2009 NY survey received usable responses from about half of the almost 700 questionnaires mailed, representing an estimated 3,500 dairy farms with almost 10,000 employees, including a quarter who were Hispanic. Responding farmers reported paying beginning milkers \$8.60 an hour in 2009, and experienced milkers \$9.70 an hour (at 160 hours a month, this suggests a \$1,400 a month wage for beginning milkers; at 200 hours a month, \$1,700). Most farmers also provided benefits to their dairy workers, which 40 respondents estimated to be worth less than \$1,000 a year or \$100 a month.

New York farmer John Barney was arrested March 30, 2011 for harboring unauthorized foreigners after a Guatemalan died in a fall at his dairy and ICE removed eight Guatemalans who were unauthorized. The workers said that Barney told them they would be paid the minimum wage of \$7.25 an hour for 12-hour, six-day weeks and receive housing at no charge. Barney said he did not know the Guatemalans were unauthorized.

Migrants and Communities

Immigration brings mostly younger Hispanics into areas that often have aging white populations. Farmers in many areas have switched to high-value commodities as land prices rose and demand for FVH commodities increased, creating a demand for labor that is satisfied in part by attracting immigrants from Mexico. Many newcomers have settled in rural and agricultural areas, introducing immigration in some areas for the first time in a century.

North Carolina

Griffith noted that Temporary Foreign Worker Programs (TFWPs) aim to rotate workers in and out of jobs in receiving countries and stimulate development in sending countries. TFWPs often begin when employers in receiving countries complain of labor shortages, and sometimes grow larger and last longer than initially expected, the "nothing more permanent than temporary workers" syndrome.

The US has two major TFWPs for employers seeking to fill seasonal jobs (generally lasting less than 10 months) with guest workers: H-2A and H-2B. DOL certifies about 100,000 farm jobs to be filled with H-2A guest workers each year, and 66,000 nonfarm jobs to be filled with H-2B guest workers (there is no ceiling on the number of H-2A visas, but only 66,000 H-2B visas are available).

The H-2A program has traditionally provided workers to a few commodities in a few states. Between the 1960s and the 1990s, most H-2A guest workers harvested sugar cane in Florida and picked apples along the eastern seaboard. For the past two decades, most H-2A guest workers were employed by tobacco farms in the

southeastern states, although the H-2A program has been expanding especially rapidly in Washington (a longstanding exception to seasonal workers for seasonal jobs allows western sheep farmers to employ foreign shepherds with H-2A visas for up to three years).

The introduction of H-2A workers into NC tobacco was motivated by tobacco-buying firms such as Altria, Philip Morris Intl, RJR, and Universal Leaf issuing contracts to farmers requiring them to hire legal workers and abide by a Good Agricultural Practices (GAP) code, which deals with food safety and labor issues. Tobacco firms send representatives to inspect farms and ensure that they abide by federal and state labor laws, encouraging some to turn to H-2A workers in order to ensure that they have a home for their tobacco.

A farm worker union, FLOC, organized H-2A workers employed by the farmers who grew cucumbers for Mt Olive Pickle, using a boycott to persuade Mt Olive to require its farmer-growers to abide by the terms of the FLOC-Mt Olive agreement (workers did not vote in representation elections). FLOC persuaded the North Carolina Growers Association, which recruits H-2A workers for cucumber and tobacco farmers, to recognize it as the representative of the H-2A workers it brings into the US, and is trying to persuade tobacco companies to sign three-way buyer-grower-FLOC agreements. More recently, FLOC and Oxfam America develop a Community-Based Human Rights Assessment (COBHRA) to evaluate the impacts of the tobacco firms' activities on NC farm workers and communities.

NC crabbers expanded their reliance on H-2B workers in the 1990s, replacing local Black women with Mexican women (often single mothers who were high-school graduates with experience working in crab plants in Sinaloa and Baja California in Mexico). Some of these H-2B workers, typically in the US for six to eight months, have settled in NC, helping others with H-2A or H-2B visas to settle.¹⁴ However, the crab and associated fishing industry is shrinking because of rising imports, including from Mexico.

New York

Dudley noted that 32,000 to 40,000 hired workers may be employed sometime during the year on New York farms,¹⁵ which have annual sales of \$3.6 billion a year. A third of NY farm workers are employed in the dairy industry and 2/3 of in FVH commodities. Almost all of hired farm workers are immigrants, usually born in Mexico, and two-thirds of hired farm workers live year-round in New York.

¹⁴One reason for settlement is that H-2B workers sometimes do housekeeping and similar work during periods with few crabs, exposing them to the US labor market.

¹⁵ Farmers reported about 60,000 jobs on NY farms in the 2007 Census of Agriculture. Tom Maloney and Nelson Bills estimated that there were 31,700 farm workers (excluding farmers and their families) in "The New York State Agriculture Immigration and Human Resource Management Issues Study" RB-08-1. Department of Applied Economic and Management, Cornell University, August 2008

Enforcement by ICE agents and state and local police in western New York has created fear among immigrants. Some workers do not travel to their countries' consulates in New York City to obtain passports and other documents that could make their life in the US easier for fear of arrest and detention en route; one response to increased enforcement has been the Mexican consulate coming to western New York. Dudley described a climate of fear among workers, as many avoid school and social activities that could draw attention to themselves and others. Attendance at Spanish language religious services and cultural celebrations has decreased.

Cornell's Farmworker Program, anticipating continued immigration enforcement, has held educational sessions for unauthorized Hispanics to explain how they can assign guardianship for their children and give power of attorney to friends in the event they are apprehended and deported. In some cases, unauthorized foreigners are quickly transferred to faraway locations before removal from the US, making such pre-planning necessary. Meanwhile the CFP conducts surveys of employers and workers to determine needs for health and safety training and housing.

The Farmworkers Fair Labor Practices Act (A 1867; S 2247), which would have required overtime pay after 10 hours of work in a day or 60 hours a week (after 55 hours beginning in 2013), was defeated in the state senate April 20, 2010, as occurred in previous years. The FFLPA would have required a day off each week unless farm workers specifically waived their right to a day off. Senate Agriculture Committee chair Darrel Aubertine called the defeat of the FFLPA a "major victory" for family farms: "we stood up to downstate legislators and special interests who do not understand the economic realities of agriculture." The New York Farm Bureau, which estimated that the FFLPA would have raised farm labor costs by \$200 million, said: "We are already paying employees a good wage, or just like any other employee they would choose to leave and find alternative employment."

Under current law, only workers on farms that employ more than 10 workers or have quarterly payrolls of over \$20,000 must provide unemployment insurance benefits for their workers. The FFLPA would have broadened UI coverage to workers on smaller farms and require all farms to provide workers compensation insurance. The FFLPA also would establish a seven-member advisory committee on agricultural collective bargaining to develop a frame work for unionization and bargaining

Pennsylvania

Lyon and Rafferty noted that Pennsylvania is primarily a livestock state: over half of the state's \$6 billion in farm sales in 2009 were animal products. Lancaster county, with about \$1.1 billion in farm sales in 2007, accounted for almost 20 percent of the state's farm sales, followed by Chester county, which had 10 percent of the state's farm sales.

A major Chester county crop is mushrooms; about 80 percent of the state's 95 mushroom operations are in Chester county, which is also home to Kennett Square, considered to be the mushroom capital of America (Pennsylvania produces more mushrooms than any other state). One of the largest mushroom operations is Kaolin, which produces a million pounds of mushrooms a week. A union of Kaolin workers was formed in 1993, recognized in 1998, and negotiated a contract in 2002; this contract is under re-negotiation in 2011. The contract may have contributed to higher wages and a more stable work force at Kaolin, but the medical and legal services provided to workers before the contract was negotiated have stopped.

Chester county offers farm workers higher than average wages, but workers also face higher than average living costs—the county has the state's highest median housing price, almost \$330,000 in 2010. The result is overcrowding, with several families often sharing two-bedroom houses to afford the rent. Many newcomers, who replace workers who find better nonfarm jobs, are unauthorized, which makes them vulnerable to immigration enforcement and restricts their access to social services.

Less than five percent of Pennsylvania's 12.6 million residents are Hispanic, a third of the 15 percent for the US. Between 2000 and 2010, the state's population increased three percent, but the state's Hispanic population almost doubled.

Hazleton made national headlines for its Illegal Immigration Relief Act Ordinance of 2006. A third of Hazleton's 31,000 residents are immigrants from Central America. A federal judge in July 2007 declared the Hazleton ordinance unconstitutional, concluding in a 206-page opinion that it was pre-empted by federal law and would violate the due process rights of those accused of violating it. Under the Hazleton ordinance, employers of unauthorized workers could have lost their business permits and landlords renting to unauthorized foreigners could have been fined. However, the US Supreme Court's May 2011 decision upholding Arizona's Legal Arizona Workers Act is likely to force a reconsideration of the injunction.¹⁶

Washington

Warner reported that almost 10 percent of Washington's 6.6 million residents were Hispanic, and that 12 percent were foreign born. The foreign-born share of residents is almost 25 percent in major farming counties such as Adams and

¹⁶ LAWA, signed into law by then-governor and now-DHS Secretary Janet Napolitano, requires Arizona employers to use E-Verify to check new hires and allows the state to revoke the business licenses of employers who hire illegal immigrants repeatedly. The Immigration Reform and Control Act of 1986 imposed federal sanctions on employers who knowingly hire unauthorized workers. IRCA struck down state and local laws that punished employers who "recruit or hire" unauthorized workers, except via "licensing and similar laws." Arizona argued that it could supplement IRCA's sanctions by suspending or revoking the business licenses of employers who repeatedly hired unauthorized workers, and the Supreme Court agreed.

Franklin. Foreign-born Hispanics in agricultural areas of Washington tend to have large families, which can make it hard for them to find affordable housing.

Washington has made farm labor news because of I-9 audits and the activities of labor recruiter Global Horizons. Gebbers Farms, a 5,000-acre apple and cherry operation north of Wenatchee in Brewster, Washington, had its employment records audited by ICE late in 2009. Gebbers fired 550 workers and gave the fired workers until April 1, 2010 to vacate company housing. In 2010, Gebbers was approved to hire 1,200 H-2A workers for six months, including 900 Mexicans. The AEW in Washington in 2010 is \$8.87 an hour.

There were predictions that the Gebbers' firings would reduce business and school enrollment in Brewster, a town of 2,100 where 90 percent of K-12 pupils are Hispanic. However, school enrollment remained steady, and business bounced back to pre-audit levels in summer 2010, suggesting that many workers who were terminated at Gebbers found other jobs. La Milpa grocery store owner Esteban Camacho said: "Everything is back to normal. I think most of the people who stayed here wound up working somewhere else. There are a lot of the same people around."

Los Angeles-based Global Horizons was charged in September 2010 with human trafficking. Global allegedly brought 400 Thai farm workers to Washington and Hawaii under the H-2A program between May 2004 and September 2005 and forced them to work to pay off high recruitment debts. Five Thais based in Los Angeles and Thailand were also charged with human trafficking.

The Thais paid \$10,000 to \$20,000 each to secure H-2A visas, and financed these recruitment fees with loans secured by their farms in northeastern Thailand. Global retained their passports, offered lower wages than promised during recruitment, and threatened them with deportation if they complained. Unlike a 1995 case involving 72 unauthorized Thai women forced to sew clothes in El Monte, Global's Thai workers were in the US legally with H-2A visas.

Trade and Migration

The papers in this session dealt with trends in fruit and vegetable exports, estimates of the impacts of immigration reforms on the US farm labor market, and the impact of legal status on farm worker wages.

Fruit and Vegetable Trade

Calvin noted that US production of fresh fruits and vegetables is increasing. Between 1990-92 and 2008-09, US fresh-market fruit production increased 12 percent while US fresh-market vegetable production rose 41 percent, with significant differences by commodity. For example, fresh-market asparagus production declined 50 percent, while fresh-market strawberry production increased 137 percent.

Rising US consumption of fresh fruits and vegetables support increased domestic consumption and rising imports. Most fruit and vegetable imports complement

rather than substitute for US production, such as imports of Chilean fresh fruit during the winter months. There are exceptions to this complementary role of imports, including the arrival of Mexican tomatoes during the winter months to compete with Florida tomatoes (most Mexican tomatoes are vine ripe while most Florida tomatoes are mature greens).

If farm labor costs rose, US fruit and vegetable growers would likely make labor-saving adjustments that vary by commodity. The raisin grape industry, for example, can mechanize the harvest of bunches of green grapes that have traditionally been cut by hand and laid on paper trays to dry into raisins in the sun. By planting grape varieties that reach optimal sugar levels earlier in August, growers can cut the canes holding bunches of grapes while the grapes are still the vine, allowing the grapes to dry into raisins and be harvested mechanically. Almost half of California's raisin grapes were harvested mechanically in 2010, up from less than five percent in 2000, sharply reducing the demand for hand harvesters.

Most of Florida's oranges are processed into orange juice, but less than 10 percent are picked by machine. If farm labor costs rose, there would likely be accelerated efforts to change the way oranges are grown to facilitate mechanization, including planting dwarf trees, using abscission chemicals to loosen the fruit, and refining harvesting machines. Florida oranges are a rare example of some growers returning from machines to hand harvesting because workers have been available and the machines may damage trees; fewer acres were harvested by machine in 2009-10 than the year before. Given the high cost of replanting, the potential of several diseases to reduce orange production, and competition from lower cost Brazil, there may be a gradual squeeze on Florida oranges, marked by gradual shrinkage as with US fresh asparagus rather than large-scale replantings and mechanization.

About 98 percent of the lettuce consumed in the US is produced in the US. Some US producers import lettuce from Mexico to avoid penalties in the contracts they sign to provide a regular supply of lettuce to supermarkets and fast-food chains. If labor costs rose, lettuce growers may accelerate the from hand-harvested iceberg to leaf and other lettuces that are harvested mechanically. Iceberg lettuce producers have already reduced the number of times fields are harvested and adopted mechanical aids to increase worker productivity.

Strawberries are a grower success story, marked by rising production, consumption, and prices. Fresh strawberries may also be among the hardest commodities to mechanize, since the fruit is soft and fragile. Labor aids, which are used extensively in southern California, increase worker productivity, and they would likely be adapted for use in fields that may be smaller and with more hills in northern California.

If farm labor costs rose, growers would be expected to respond by increasing worker productivity, which they could do by using less labor (fewer repicks etc) and giving workers aids. They could also mechanize, replacing hand harvesters with machines. However, mechanization is rarely a 0-1 case of a machine

replacing hand workers. Instead, mechanization is often a process that involves changing the variety and method of production to make the fruit or vegetable amenable to machine harvesting and working with packers and processors to handle machine-harvested produce. The fact that harvest mechanization may depend on everything from nursery plants to retailers can make it hard for one grower to mechanize in isolation.

If there is little import competition, growers may be able to pass at least some higher labor costs on to consumers, which could slow rising consumption of commodities such as strawberries. A significant wage increase of 30 to 40 percent, as occurred within a few years of the end of the Bracero program in the mid-1960s, would encourage all growers to seek labor-saving changes, but their exact responses are likely to vary by commodity, with raisins and processing oranges perhaps mechanizing fastest.

Modeling the Effects of Immigration Reforms

Hertz and Zahniser modeled the impacts of immigration reform on agriculture and farm workers. Using the USAGE CGE model of the US economy (www.monash.edu.au/policy/mon-usa.htm), they examined how various immigration reform proposals might affect wages and employment in 70 US sectors and 50 occupations (five high-skill and 45 low skill).

There are three types of labor: US born legal, foreign-born legal, and foreign-born unauthorized, and there is assumed to be full employment in the long run. The demand for labor depends on real pretax wages, technology, and commodity prices, while supply depends on wages and occupation last year. Within an occupation, workers are assumed to be imperfect substitutes, e.g. farmers can hire US-born, foreign-born legal, or unauthorized workers.

Their first scenario assumes that increased enforcement leads to a reduction in the number of unauthorized workers in all occupations in the US by 2.1 million over five years. After this five-year period, the immigrant population grows at a somewhat slower pace than before enforcement was increased. The model predicts that an enforcement-only strategy would reduce total employment in agriculture by 3.5 percent, including a 35 percent reduction in unauthorized labor but a 4 percent increase in legal labor (both US-born and immigrant, family workers and hired workers). Farm wages would rise by about 3 percent overall, while farm output would fall by 2 to 4 percent, with the largest declines in the most labor intensive sectors such as greenhouse and nursery production. Agricultural exports fall by 2 to 8 percent, depending on the crop.

A second scenario increases the number of foreign workers admitted under the H-2A program by about 83,000 a year in the second year of the simulation, rising to 150,000 a year above current levels in the 15th year of the simulation. Total employment in agriculture is predicted to rise by 1.7 percent, due to a 32 percent increase in unauthorized labor and a 6 percent decrease in authorized labor (both family and hired). Output increases by 1 to 2 percent, while exports increase by up to 3 percent in some labor-intensive sectors such as vegetables. Farm wages

fall by 4 percent for legal workers and as much as 10 percent for unauthorized immigrants.

Estimating the Value of Legal Status

Wang et al used two decades of NAWS data to examine the earnings of workers employed on US crop farms. Of the 54,000 workers interviewed by the NAWS over the past two decades, about 80 percent were hired directly by farm employers and 20 percent by labor contractors; the average years of schooling (over the entire 20 years) was about seven years for direct hires and six for contractor hires; farm work experience was 11.5 years for direct hires and 9.2 years for contractor hires; and hourly wages were \$6.60 for direct hires and \$5.90 for contractor hires, about 10 percent less. Unauthorized workers had lower levels of education, less farm work experience, and lower wages.

Wang's hedonic approach decomposed the factors that determine earnings into various factors or characteristics, including level of education, farm work experience, and the worker's legal status. The results suggest that more education and more farm work experience as well as legal status are associated with higher wages. These same more education and experience characteristics, as well as legal status, are also associated with being hired directly by farmers rather than contractors.

May 12-13, 2011 Agenda

**Immigration Reform:
Implications for Farmers, Farm Workers, and Communities**
Meeting and Lodging: UC-DC (www.ucdc.edu)
1608 Rhode Island Avenue, NW, Washington, DC 20036
Tel 202-974-6200 Fax: 202-974-6250
Thursday-Friday May 12-13, 2011
Lodging at UC-DC May 11-12, 2011

At least 50 percent of US farm workers are unauthorized. The AgJOBS immigration reform proposal would provide a path to legal status for some currently unauthorized farm workers and make it easier for farm employers to employ legal guest workers under a revised H-2A temporary worker program.

The purpose of this conference is to learn about migration patterns and impacts in rural and agricultural areas, assess immigration reform proposals, hear from employer and worker advocates, and discuss ongoing research on these issues. Presentations are posted at: (<http://migration.ucdavis.edu/cf/index.php>).

The conference is organized with the support of USDA's Agriculture and Food Research Initiative, the Farm, Giannini and MacArthur Foundations, JSRI, SRDC, and CRCIG. For further information, please contact Philip Martin (plmartin@ucdavis.edu)

Thursday, May 12, 2011

7:30am Breakfast available in conference room

8:30am Farm Workers and Immigration Reform, Felicia Esobar, Domestic Policy Council, and Oscar Gonzalez, Office of the Secretary, USDA

9:15 Immigration Patterns, 1986-2011, Jeff Passel, Pew Hispanic Center
NAWS Trends, 1989-2009, Daniel Carroll, US Department of Labor

10am Break

10:15 The Outlook for Immigration Reform, Chair, Philip Martin, UC-Davis
Mark Krikorian, Center for Immigration Studies
Frank Sharry, America's Voice

12 Lunch

1:00 Industry and Worker Perspectives on Immigration and Bargaining, Chair,
Neil Conklin, Farm Foundation
Patrick O'Brien, Independent Ag Consultant
Craig Regelbrugge, American Nursery & Landscape Association
Erik Nicholson, United Farm Workers
Steve Hitov, Coalition of Immokalee Workers

2:45 Break

3:00 Canada's SAWP and Other Programs, Randall Hansen, University of
Toronto
Kerry Preibisch, University of Guelph
Ken Forth, Labour Issues Coordinating Committee
Andrea Galvez, UFCW Canada
Diane Burrows, Canadian Embassy; Juan Carlos Lara, Mexican Embassy

5:00 Adjourn

7:15 Dinner, Logan Tavern, 1423 P St. NW, www.logantavern.com

Friday, May 13, 2011

7:30am Breakfast available in conference room

8:30 Migrants and Agriculture: Commodities, Chair, Ruben Martinez, MSU
California, 1960-201, Philip Martin, UC-Davis
Florida and Citrus-Tomatoes, Fritz Roka, U-FL
Washington, Ernie Stromsdorfer, Washington Employment Security
Colorado Nurseries, Dawn Thilmany, Colorado State University
New York Dairies, Tom Maloney, Cornell University

10:45 Break

11 Discussion

11:45 Lunch

12:30 Migrants and Communities, Chair, Cornelia Flora, Iowa State University
Carolinas, David Griffith, East Carolina University
New York, Mary Jo Dudley, Cornell University
Pennsylvania, Beth Lyon, Villanova
Washington, Joann Warner, Western Center for Risk Management
Education

3pm Trade and Immigration, Chair Philip Martin, UC-Davis
Fruit and Vegetable Production and Trade, Linda Calvin, USDA
CGE Modeling of Immigration Reform's effects on Farm Labor, Tom
Hertz and Steve Zahniser, USDA
The Value of Legal Status to Farm Workers, Sun Ling Wang, USDA

4:30 Adjourn