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Migrant Workers in Commercial Agriculture

Philip L. MARTIN



Labour Migration Branch

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by

Philip L. Martin

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Foreword

Particular branches of the economy provide a significant source for work for internal and international migrants seeking temporary or permanent employment opportunities away from their home communities. In turn, migrants are a vital source of skills and labour for several economic sectors. However, the important links between migration and labour markets, including the quantity and quality of jobs, are often ignored or not well understood, nor do we know much about the diversity of situations in different sectors as concerns migrant employment. In the recent past, ILO constituents have voiced keen interest in learning more about migrant workers in particular economic sectors, and this for various reasons ranging from concern over the working conditions of migrant workers to the desire of increased cross-border labour flows with a view to improving labour allocation and gaining efficiency.

This study is part of a larger ILO effort to close knowledge gaps regarding labour issues in economic sectors where migrant workers can be found in considerable numbers, such as agriculture, construction and mining.

This report by Philip L. Martin focuses specifically on the employment of international migrant workers in the agricultural sectors of high-income countries. The report gives an overview of agriculture and the people employed on commercial farms, emphasizing that an increasing share of the workers employed in industrial-country agriculture are hired or wage workers, and many of these hired farm workers are international migrants from poorer countries. Four case studies of agricultural guest worker programmes (Canada, New Zealand-Australia, Spain, the United States) identify common features of government-managed migrant farm worker programmes as well as show large variations in migrant employment in agriculture. The migrants themselves also vary widely in education and skills, from students who pick fruit crops during summer vacations to subsistence farmers who work seasonally or year-round abroad. The author finds that the work of migrants is critical to sustaining commercial agriculture, justifying concerted efforts to understand the characteristics and conditions of migrant workers in this sector.

The report and its recommendations to the ILO and its tripartite constituency is based on a review of the relevant data and literature and interviews with key informants in government, agricultural employer organizations, and workers' organizations.

This is a joint publication by the Labour Migration Branch of the Conditions of Work and Equality Department of the ILO and by the ILO's Sectoral Policies Department. We wish to express our thanks to Christiane Kuptsch, Senior Specialist in Migration Policy, and Carla Henry, Senior Technical Specialist, for their conception of and guidance on this project.

Alette van Leur Director Sectoral Policies Department Manuela Tomei Director Conditions of Work and Equality Department

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Summary

This report assesses the employment of international migrant workers in the agricultural sectors of high-income countries. Its purpose is to assess the employment of international migrants in industrial country agriculture in selected countries and the programs that admit agricultural guest workers in order to draw conclusions and make recommendations to the ILO and its tripartite partners to improve protections for migrant guest workers employed in agriculture.

Agriculture, the production of food and fiber on farms, employs a third of the world's workers, more than any other industry. An increasing share of the workers employed in industrial-country agriculture are hired or wage workers, and many of these hired farm workers are international migrants from poorer countries.

Agricultural employment and internal migration to fill seasonal farm jobs declines with economic growth. As a result, the share of international migrants in the farm work force increases over time, especially when the supply of local labor falls faster than demand. Most governments respond to the "farm labor shortages" that occur when local workers shun farm jobs faster than labor-saving technology or imports eliminate farm jobs with a combination of:

- 1. toleration of local workers who are employed on farms "off the books" while collecting social benefits,
- 2. foreigners who have visitor, student, and similar visas while doing farm work and,
- 3. guest and irregular workers from poorer countries.

This report focuses on guest workers from poorer countries admitted to fill farm jobs in industrial countries.

Agriculture provides jobs and wages for workers who cannot find better jobs, both local and foreign. Migrant workers, in turn, sustain labor-intensive crop production in high-income countries and in some cases enable its expansion. Protecting the local and foreign workers employed in seasonal agriculture is challenging. Workers are dispersed across farms and may not know their rights. Even if they are aware of their workplace rights, local workers may not complain because they see their jobs as short-term means to earn extra money rather than careers, while guest workers may not complain for fear of being blacklisted and unable to return next season.

This report is based on a review of the relevant data and literature and interviews with key informants in government, agricultural employer organizations, and workers' organizations. There are four case studies of guest worker programs: Canada, New Zealand-Australia, Spain, and the US. We are grateful to those who provided data and insights and to researchers who shared work in progress and reviewed the case studies.

Migrants and Commercial Agriculture

There are five major conclusions:

 International migrants provide vital skills and labor to agriculture in many countries, both industrial and developing, and labor-intensive crop agriculture provides income-earning opportunities for migrants. The share of international migrants in the farm workforce is rising in most industrial countries and in many middle-income developing countries, while internal migration to fill seasonal farm jobs is declining. Most of the international migrants employed in agriculture in high-income countries are male, often three-fourths or more.

- 2. The seasonal farm labor market often operates in ways that lead to inefficiencies and a lack of worker protections. Ideally, a central register would list jobs and workers available so that farm work could be done with minimum un- and underemployment for workers. In reality, workers are often organized into crews by contractors and other intermediaries who arrange a series of jobs for their crews in a decentralized system with perverse incentives. Since farm employers do not pay for waiting time, they have an incentive to request too many workers too soon to ensure that their crops are picked in a timely way. Contractors, on the other hand, have an incentive to promise more workers than they have available, and to promise them sooner, to win the farmer's business. This results in simultaneous shortages and surpluses of farm labor, with farmer complaints of labor shortages typically receiving more publicity than the worker unemployment that occurs while waiting for jobs to begin.
- 3. The agricultural job pyramid is short and steep, with few workers able to climb the ladder from seasonal to year-round worker or farm operator for reasons that range from legal obstacles that prevent migrants from buying land to migrant lack of capital. Most farms are privately owned, and few have systems to identify qualified seasonal workers and to help them to become supervisors and eventually business partners. Instead, many farms rely on a few year-round workers and outsource seasonal jobs to contractors, limiting farmer interaction with seasonal crews and the potential for farmers to identify good workers and promote them.
- 4. International migrants who fill seasonal farm jobs on commercial farms in higher-income countries vary widely in education and skills, from teachers who pick fruit crops during summer vacations to subsistence farmers with little education who work seasonally or year-round abroad. Most international migrants employed in agriculture are men, in part because employers must often provide housing for guest workers, encouraging them to hire one sex to reduce housing costs. Migrant workers often have high injury and illness rates due to carrying and lifting, often over uneven ground, and the risks posed by pesticides and other chemicals. Relatively few farm workers are represented by trade unions, and governments often have difficulty enforcing labor and health and safety laws in agriculture because few workers complain of violations.
- 5. Government policies toward hired farm workers are not consistent. Many governments enact protective labor laws after particular incidents involving farm worker protests or injuries, but few have policies to encourage farm employers to abide by these laws and raise labor standards and productivity over time so that agriculture provides higher-wage and safer jobs for more skilled workers. Instead, many governments tolerate unauthorized workers and do not adequately protect guest workers, leading to substandard housing and other deficiencies. Some say that forcing costly labor changes on farmers would drive them out of business, increase food imports, and eliminate "good nonfarm jobs" for local workers in upstream or downstream industries.

In part because the employment of migrant workers in agriculture is often seasonal and considered transitional until machines or imports displace workers or urbanization absorbs farm land, there are systemic data gaps on migrant workers, including who they are, how much they earn abroad and how these earnings affect lives at home, and whether experienced migrants are rewarded for their higher productivity. Three international migration issues deserve closer scrutiny: government management, workers, and industry scenarios.

First, governments manage the employment of international migrants in many ways, from bilateral labor arrangements (BLAs) such as bilateral agreements (Bas) or memoranda of understanding (MOUs), to unilateral programs that allow employers to recruit when and how they want. Are there observable differences in employment and earnings or other outcomes between BLAs and unilateral programs? Which BLAs are best? Do BLAs that include development-at-home goals make a measurable difference, and does this difference in development outcomes justify the subsidies that are often provided from foreign aid budgets to bilateral guest worker programs?

Second, guest workers who live in one country and work seasonally in another are typically men from rural areas who live abroad in barracks-style accommodations with fellow citizens. What are the challenges

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involved in recruitment, transportation, work, leisure, and return, and what are best practices to deal with them? For example, should guest workers be housed in larger centers in populated areas and transported to farms as needed, or should they be housed on the farm where they work, even if they have days with no work and are isolated? Housing workers in cities and towns would allow them to interact with local residents at the cost of more transport time to jobs, while on-farm housing reduces transport time but can increase isolation and can reduce earnings.¹

Third, how should government, worker, and industry leaders think about the future. Fresh fruits and vegetables are mostly water, and they have traditionally been grown near the place where they were consumed because of transportation costs. However, many fruits and vegetables are now shipped long distances, and increased trade in fresh produce means that local production may compete for imports, especially early and late in the season. How should ILO stakeholders think about migrant labor and in-country production that relies on migrant workers in an increasingly globalized fruit and vegetable economy? Should guest workers be admitted to maintain domestic production for food security and safety reasons, or should imports be encouraged to create jobs in the workers' countries of origin?

Recommendations for ILO Stakeholders

These issues and findings prompt the following recommendations for the ILO, unions, employers, and governments:

- 1. Collect better data and assess programs that admit migrants to fill farm jobs. Data collection and assessment could begin with the procedures used by governments to determine whether migrants are needed, such as labor market tests to determine whether local workers are available, recruitment and training procedures for both local and migrant workers, wage systems and their interactions with tax and social welfare systems, and opportunities to create job ladders that allow local and migrant workers to acquire and be rewarded for additional skills. If migrants simply enter and exit each season, and labor costs do not rise, there is little incentive to improve productivity and wages. Developing policies to raise productivity and wages over time is challenging but necessary.
- 2. Assess the impacts of remittances on the often rural areas from which migrants originate to determine the contribution of work abroad to development at home. Do the often subsistence farms of migrants wither while they are away, or do other family members keep the farm viable by switching from the harder work of crops to the easier care of livestock and rent out crop land? Do migrants use the skills they acquire abroad when they return, or are crops different in areas of origin and destination so that skills acquired abroad have little relevance in agriculture at home?
- 3. Compare the benefits and costs of BLAs versus unilateral programs to admit migrant farm workers. Most BLAs are effectively unilateral in the sense that destination countries prepare and send the agreements to labor-origin countries that sign them with few or no changes. If migrant-sending governments sign BLAs and participate in annual consultations on the operation of guest worker programs, do worker protections improve? Do sending-government representatives in destination countries (for which migrants often pay) result in them "taking the employer's side" in order to preserve job opportunities for sending-country migrants or respond to worker complaints and increase protections for migrant workers on site?
- 4. Most farm employers guarantee work for the period of migrant contracts, as with Spanish contracts that guarantee 18 days of work a month or the US requirement that farmers guarantee work for at least three-fourths of the employer-specified period of work. Migrants who are abroad seasonally often want to work more hours. Should governments encourage the formation of employer cooperatives

¹ Many governments require employers of seasonal farm workers to provide housing to guest workers at no charge (Australia and New Zealand, Canada, US) while other governments allow charges up to a limit (Malaysia).

- to maximize work opportunities for migrant workers, so that workers can move from farm to farm as needed? Would labor cooperatives with professional managers help to improve worker training and orientation and enforce housing and labor standards and worker protections? Should workers be limited to 60 or 70 hours a week, even if they want to work more?
- 5. Study best practices to protect and empower migrants, including the effects of allowing employers and unions to participate in the design of migrant worker programs and to monitor the recruitment of workers abroad. Many employers advance money to migrants to cover transport and related costs, and then recoup some of all of these migration costs via wage deductions. Taxes for work-related programs such as pensions and unemployment are often deducted from migrant worker wages. Should guest workers receive refunds of these taxes paid, and would these refunds act as an incentive to return at the end of the contract and provide an opportunity to match foreign earnings to promote development at home?
- 6. Many migrant worker programs have multiple goals, including filling vacant jobs and promoting economic development in migrant-sending areas. These development goals may justify subsidies from foreign aid budgets to recruit migrants and acquire skills abroad before returning, but they have not been evaluated rigorously. How successful are migrant farm worker programs at achieving these development goals? How many of the development effects of guest worker programs are inter-generational, in the sense that the children of guest workers benefit from the spending of remittances on education and health care?
- 7. Most seasonal farm workers are young men, with notable exceptions in particular commodities and areas, as with female berry pickers in southern Spain. As labor costs rise, can farm work be made easier by using conveyor belts in fields to reduce the need to carry harvested produce, mechanical lifts and dwarf trees to eliminate the need for ladders to pick fruit, and experiments with table top production of berries to reduce stooping? If yes, how will the age and sex composition of the labor force change, and what are the implications for worker protections and development?

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1. Introduction

This report assesses the employment of international migrant workers in the agricultural sectors of high-income countries. Its purpose is to assess the employment of international migrants in industrial country agriculture in selected countries and the programs that admit agricultural guest workers in order to draw conclusions and make recommendations to the ILO and its tripartite partners to improve protections for migrant guest workers employed in agriculture.

The report has four major sections. The first section provides an overview of agriculture and the people employed on commercial farms, emphasizing that in industrial countries a rising share of farm work is done by hired workers rather than farm operators and their unpaid family members. The second section reviews international migration patterns, the operation of the seasonal farm labor market, and the relationships between farm employers and hired workers, noting that a higher share migrant workers are often half or more of seasonal workers employed on commercial farms in industrial countries.

The third section presents case studies of government programs to admit migrant farm workers in Canada, Australia and New Zealand, Spain, and the United States. Most agricultural guest worker programs are based on bilateral labor arrangements (BLAs) between governments in receiving and sending countries, with receiving-country governments normally defining the parameters of the program. The US had BLAs with Mexico and Caribbean governments in the past, but today's H-2A guest worker program is unilateral in the sense that once a farm employer is certified as in need of guest workers, the employer may recruit guest workers in any of 60+ countries in accordance with that country's laws.

The fourth section presents conclusions and recommendations to the ILO and its tripartite constituency. The ILO's goal is to improve protections for all workers, including migrant workers, by ensuring that migrants are protected during recruitment and treated equally while employed abroad. There are several major obstacles to accomplishing these goals, including the fact that many migrant workers are brought to farms by intermediaries such as labor contractors, making it sometimes difficult to assign liability when there are violations of protective labor laws, suggesting that automatic joint liability could improve farm operator interest in labor law compliance by contractors.

Hired farm workers, including migrants, are near the bottom of the wage scale in most industrial countries despite being employed in an industry that often requires hard work that is outdoors and sometimes dangerous. Nonetheless, many workers from lower-wage countries are eager to enter industrial countries to earn in an hour what they could earn in a day at home, and many legal guest workers return to the same farm employer year-after-year for decades.

The "triple win" goals of guest worker programs are to fill vacant jobs, to enable workers to earn higher wages and acquire new skills, and to spur development in migrant areas of origin. Several programs explicitly assert that they aim to achieve such triple wins, but most are too new or lack data to demonstrate the achievement of all three goals, suggesting that more data and careful monitoring are required to assess program outcomes.

2. Agriculture and Labor

Agriculture, the production of food and fiber on farms, is the keystone of the larger food system that includes industries such as seed and fertilizer firms that supply production inputs to farmers and the output sector comprised of firms that process and distribute food and fiber to consumers. An estimated three-fourths of the world's poor people live in rural areas, where most depend on agriculture for their livelihood. Low productivity limits farm wages and incomes, prompting world leaders at the G-20 summit in Pittsburgh in September 2009 to pledge to increase support for initiatives to increase agricultural productivity and bolster the incomes of the rural poor (www.gafspfund.org).

This report does not deal with the reasons for and solutions to the poverty of small farmers and workers in developing countries. Instead, it deals with workers employed for wages on farms in high-income countries, and focuses on hired farm workers admitted as guest workers from poorer countries.

2.1 From Farm to City

Until recently, most people in all countries were employed in agriculture and produced much of their own food. Industrialization in the 18th and 19th centuries moved farmers and their families into cities and factories, and during the 20th century most workers in industrial countries shifted from producing goods to providing services.

This transformation from farm to city, and from agriculture to industry and services, is occurring in many developing countries, as especially young people in farming families engage in geographic and occupational mobility when they leave the farm, moving to cities and finding nonfarm jobs. The UN reported that over half of the world's people lived in cities for the first time in 2009, and rapid urbanization is expected to continue.² China had over 250 million internal rural-urban migrants, more than the world's stock of international migrants (Migration News, 2014).

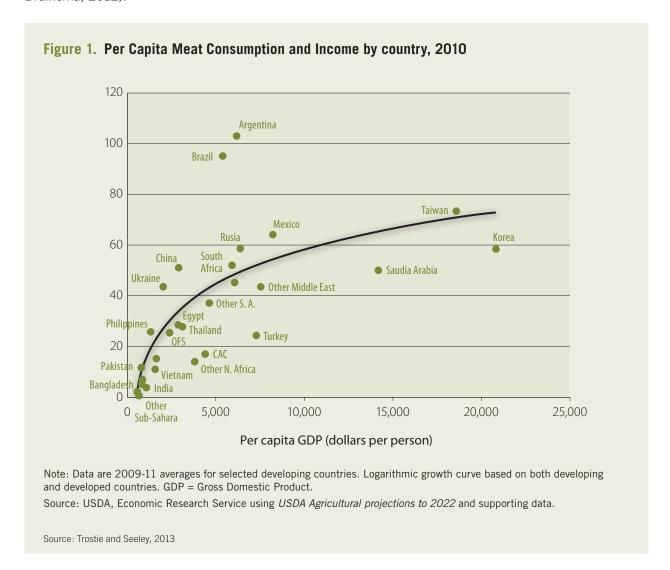
Over the past half century, food production increased faster than population growth due to productivity growth via improved plant and animal breeding, more fertilizer and chemicals to protect crops and livestock, and more irrigation of crop land. Agricultural output growth of two percent a year exceeded population growth of 1.2 percent a year, leading to surpluses of crops in some countries. Rising energy prices prompted some governments to mandate the use of crops for fuel, as when corn and sugar cane are turned into ethanol.

Rising farm productivity led to fewer and larger farms, which reduced the employment of farmers and family members and increased the importance of hired workers. The benefits of higher productivity accrued primarily to consumers in the form of lower food prices, not to especially small farmers and farm workers. Many small farmers left farming for nonfarm jobs, or continued to farm while also working in nonfarm jobs.

An even more important factor in the changing mix of crops is the effect of affluence, which encourages consumers to shift from grain-based diets to meat-based diets as their incomes rise. Most meat is consumed in developing countries, and demand for meat and other animal products is expected to rise in these

² There were 3.42 million urban and 3.41 million rural residents in 2009, when there were 23 mega cities (more than 10 million residents) with a combined 360 million residents, or an average of over 15 million residents each. By 2025, there are expected to be 37 mega cities with a combined 630 million residents, an average 17 million residents. UN DESA. 2009. Urban and Rural Areas, 2009. www.un.org/en/development/desa/population/publications/urbanization/urban-rural.shtml.

countries as their incomes rise.³ Some projections expect ever-increasing competition between animals, food, and fuel for crops, especially corn and sugar cane, crops that are often used for biofuels. Most projections assume that per capita calorie consumption will rise from 2,800 per day in 2010 to 3,100 per day in 2050, and that the share of calories from animal sources will rise from 18 to 24 percent (Alexandratos and Bruinsma, 2012).⁴



Most food is consumed near where it is produced. However, farm products have been moved long distances for millennia, including the wine trade around the Mediterranean and the spice trade that spurred the global age of discovery in the 16th century. Storable grains such as rice and wheat move from lower-cost to higher-cost areas via trade, as do meat and dairy products, which sometimes move long distances. Even fresh fruits, vegetables and flowers are increasingly grown in one place and transported to consumers elsewhere. Trade in farm commodities is increasing, up five-fold in the past half century (FAO Statistical Pocketbook, p. 34).

³ FAO reported that in 2015 people in industrial countries would consume 96 kg of meat per person while developing country residents would consume 32 kg. Residents of industrial countries consumed an average 3,400 calories per day in 2009, including 27 percent from animal products. Note that per capita calories increased by almost 500 per day in China between 1990 and 2009, with over 80 percent of the increase from animal products. www.fao.org/docrep/005/y4252e/y4252e05b.htm.

⁴ Per capita daily calorie consumption was about 2,200 in 1961, when 15 percent of calories were from animal products such as meat and dairy products.

US corn provides an example of agricultural trends that affect everything from migration to diets. There are over 90 million acres of corn planted in the US, including a third in lowa and Illinois, where farmers harvest an average 175 bushels an acre. About 40 percent of the 12 billion bushels of US corn produced each year are used to make ethanol, 40 percent is used to feed animals, and 20 percent is used to make food for humans, including high-fructose corn syrup that is used as a sweetener (www.ers.usda.gov/topics/crops/corn/background.aspx).

Corn is not a labor-intensive crop, and is generally produced on midwestern farms that are operated by families. The major use of immigrant labor is to detassel corn that is grown for seed. In the past, local teens were organized into crews to detassel seed corn by removing the pollen-producing flowers at the top of corn stalks and putting them on the ground so that they do not pollinate the female silk on the ear of the corn. Fields of corn for seed are planted with two varieties of corn. The detasseled variety is pollinated by the remaining variety, producing a hybrid with higher yields. Machines can remove up to 90 percent of the tassels of one variety, but seed firms aim for 99.5 percent detasseling.⁵

Most corn detasseling crews today are comprised of Mexican-born adults who are recruited in Texas and other states and moved to the midwest where corn production is concentrated each summer. The recruiters that organize and supervise detasseling crews are frequently accused of violating worker rights in suits filed on their behalf. Most of these suits are settled by the seed firms that used recruiters to organize detasseling crews.⁶

Detasseling is a short-term job. However, many farm jobs that were once short-term and seasonal are becoming longer as new plant varieties permit extended harvests and practices such as planting additional vegetables each week so that they can be harvested almost the entire year allow some harvest workers to be employed almost year round. Many international migrants work abroad and rest at home, meaning that even if they are circular migrants moving between farms in poorer countries and farm jobs in richer countries, many migrants may do little farm work at home.

Fruits and vegetables have defied mechanization because a growing share are consumed fresh. The major obstacles to faster labor-saving mechanization in fresh fruits and vegetables are relatively low wages and a lack of uniform ripening. Most machines require once-over harvesting because machines that harvest the same plant or tree multiple times often damage the immature fruit, reducing yields. If plant breeding can achieve more uniform ripening, machines and ever-cheaper information technologies to detect and select ripe produce could replace many of the migrants who are currently employed in harvesting.

2.2 Hired Farm Workers

Food and fiber are produced on farms in land-intensive and biological production processes by three major types of workers: farm operators, unpaid family workers, and hired workers. The employment of all three types of workers falls with economic development, but the employment of farmers and unpaid family members falls fastest, largely because labor-saving machinery allows farmers and their families to farm more land and handle more animals, that is, productivity growth has been fastest in the grain and livestock farming sectors dominated by family-operated farms.

The crop sub-sector most closely associated with hired farm workers includes labor-intensive fruits and nuts, vegetables and melons, and horticultural specialties that range from flowers and plants to mushrooms, often shortened to fruit, vegetable, and horticultural (FVH) commodities. The livestock sector most closely associated with hired workers are mega-animal operations, including dairies, confined animal feeding operations such as stockyards, and poultry farms.

⁵ Ellen Bryon, Detasseling, a Midwest Rite Of Passage, Faces Extinction, Wall Street Journal, August 9, 2002.

⁶ Examples of the alleged violations and settlements are at: http://migration.ucdavis.edu/rmn/more.php?id=1566, http://migration.ucdavis.edu/rmn/more.php?id=1564, http://migration.ucdavis.edu/rmn/more.php?id=1639.

A report prepared for the ILO estimated that 60 percent of persons employed in agriculture in 2000 were farm operators and members of their families and 40 percent were hired or wage workers, including some who were both small farmers on their own farms and wage workers for other farmers (Pigot, 2003, p. 38). Mueller and Chan (2015, p. 2-3) believe that wage work by very poor farmers in sub-Saharan Africa is often under-reported in labor-force surveys. They find that the share of farm work done by hired workers is rising even in developing countries.

The ILO's Global Employment report for 2013⁷ estimated that:

- > 1.1 billion or 34 percent of the world's workers were employed in agriculture
- > 700 million or 22 percent were employed in industry and construction and
- > 1.4 billion or 44 percent were in services.

In developed economies with a total workforce of 468 million, sectoral shares of employment were:

- > 16 million or four percent in agriculture
- > 106 million or 22 percent in industry and construction and
- > 346 million or 74 percent in services.

In developing countries with 2.8 billion workers, sectoral shares of employment were:

- ➤ 1 billion or 37 percent in agriculture
- > 600 million or 21 percent in industry and construction and
- > 1.1 billion or 40 percent in services.

All countries with fewer than five percent of their workforces employed in agriculture are rich, and all countries with more than 50 percent of workers employed in agriculture are considered poor by the International Monetary Fund and the World Bank.

Consolidation of farm production on fewer and larger farms, with hired workers doing an ever rising share of farm work, is occurring around the world. Hired workers do most of the harvest work on farms that produce FVH commodities in Western European countries. Many are migrants from poorer countries, as with Poles employed on German farms, Ukrainians employed on British farms, and Romanians employed on Italian and Spanish farms. In Japan and the Republic of Korea, migrants from China and other Asian countries often work on farms that produce labor-intensive crops, including as the wives of farmers (marriage migration), as foreign trainees who work-and-learn, and as guest workers.

In many developing and emerging countries, workers from lower-wage neighboring countries do much of the work on larger farms and plantations. For example, migrants from nearby countries are employed on Malaysian and Thai farms, on farms in South Africa, and in agriculture in Argentina and Costa Rica. International migrants are most of the hired workers employed in some developing countries, as with Indonesians and Bangladeshis employed on Malaysian palm oil plantations.

⁷ www.ilo.org/global/research/global-reports/global-employment-trends/2013/lang--en/index.htm?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+FullPolicyNewsUpdate+(Full+policy+news+update).

3. International Migrants and Agriculture

3.1 Migration Patterns

International migration is increasing. Some 244 million people had left their country of birth and moved to another country for a year or more in 2015, up from 222 million in 2010, an increase of 4.4 million a year. Some 3.3 percent of the world's 7.3 billion people are international migrants.⁸

The UN reported that 173 million migrants or 71 percent were in high-income countries in 2015 and 71 million or 29 percent were in developing countries. Most migrants were from lower-income countries, 182 million, and most were from middle-income countries, 86 percent. Most of the migrants originating in high-income countries move to another high-income country, as from Canada to the US.

There were almost 15 million refugees in June 2015, according to UNHCR, up from 10 million in 2011. Refugees are defined as persons outside their country of citizenship and unwilling to return because of a "well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion" at home. There were another 34 million internally displaced people (UNHCR, 2015).

Turkey hosted the most refugees, 1.8 million, followed by Pakistan, Lebanon and Iran. The leading sources of refugees were Syria (4.2 million), Afghanistan (2.6 million), Somalia (1.1 million) and South Sudan (744,000).

International migrants are often different from local residents. For example, in most countries there are more women than men because women live longer than men. However, 52 percent of international migrants are men. A higher share of migrants are in the prime working age group between 20 and 64 than are local residents.

The ILO estimated that 150 million or 65 percent international migrants were in the labor forces of the countries to which they moved in 2013 (ILO, 2015a), so that 73 percent of migrants 15 and older were employed or seeking jobs, compared with 64 percent of non-migrants. Both male and female migrants have higher labor force participation rates than non-migrants, 78 versus 77 percent for men and 67 versus 51 percent for women.

Most migrant workers were men, 84 million or 56 percent. A third of migrant workers were in Europe, a quarter in North America, and most of the rest in Asia. The highest shares of migrants among all workers are in the Gulf oil-exporting countries.

The ILO included 58 countries in its high-income group, from Argentina to most OECD countries (not Mexico and Turkey) and Russia and the Gulf oil exporters. This classification puts 112 million migrant workers or 75 percent in high-income countries, where they were an average 16 percent of the 687 million strong labor force. The remaining 38 million migrant workers are in lower-income countries, where they are an average 1.4 percent of 2.7 billion workers. Migrants are an average four percent of all 3.4 billion workers (ILO, 2015a, p. 9).

⁸ These data are from the UN's DESA: www.un.org/en/development/desa/population/migration/index.shtml.

	Countries grouped by income level			
	Lower	High	World	
Total workers	2,707	687	3,394	
Migrants	38	112	150	
Migrant share	1.4%	16.3%	4.4%	

Table 1. Migrant Workers in Lower- and High-Income Countries, 2013 (Millions)

Source: ILO, 2015a, Table 2.5

The major motivation to cross national borders is economic, the quest for higher wages and more opportunities in a globalizing world. Migrants are often concentrated in particular sectors, from agriculture and construction to domestic services. The ILO estimated that 71 percent of migrant workers were employed in services (including eight percent as domestic workers), 17 percent in industry, and 11 percent in agriculture.

3.2 The Seasonal Farm Labor Market

Labor markets match workers and jobs by performing recruitment, remuneration or motivation, and retention functions. These 3 R's are handled in unique ways in agriculture. For example, farmers rarely place ads in newspapers to recruit workers, or send recruiters to high school or college campuses in search of workers. More typical is a farmer who says, "when we need X workers, we call up the contractor, and they supply the workers."

Recruitment matches workers and jobs. In seasonal industries such as agriculture that require large numbers of workers to fill seasonal jobs, a central clearinghouse for farmers to list vacancies and for workers seeking jobs is the most efficient way to match hundreds of thousands of workers with a similar number of jobs. A clearinghouse could be operated by employers, unions (hiring halls), or a no-fee public employment exchange.

The logic of a job-worker clearinghouse to minimize uncertainty for growers and unemployment for farm workers is clear, but there are few examples of their successful operation. In the US, employer associations and the public employment service were the major clearinghouses for most of the 20^{th} century, but the end of the Bracero program that admitted about 4.5 million Mexican workers between 1942 and 1964 prompted the demise of employer associations, while suits alleging that the public employment service (PES) discriminated against farm workers by not telling them about nonfarm jobs led to the elimination of specialized farm labor service in the PES.

There are relatively few unions in agriculture, and their efforts to operate hiring halls have generally failed. The United Farm Workers in California tried to operate union-run hiring halls to deploy workers to the farms where it had contracts, almost 200 in the late 1970s. However, many workers objected to paying dues before being sent to farm jobs, and others complained that their work assignments split up families and complicated transportation to the fields (Martin, 2003). Unlike a union-run hiring hall that allocates jobs at ports, so that workers know where to appear to be assigned to a job and then travel a short distance to work, farm work is much more dispersed, making it difficult to efficiently communicate with farm workers in an era before computers and smartphones.

Many farms hire workers directly, usually relying on a supervisor to find sufficient workers when they are needed. Supervisors, in turn, often ask current workers to recruit friends and relatives to fill jobs. Such network recruiting has several advantages for the employer, including the fact that current workers recruit only those who can perform the job and often take responsibility for the workers they bring into the crew.

The key work unit in agriculture is the crew, whose size ranges from 10 to 50 workers. Each crew has a supervisor responsible for hiring and disciplining a crew. When these crews are managed by contractors, they could be win-win institutions to benefit employers and workers, since contractors specialize in bringing workers to farms to fill seasonal jobs and find a series of jobs for workers who may otherwise be unemployed between jobs.

In practice, contractors are often less powerful than the farmers to whom they provide workers. In order to earn a farmer's business, contractors may offer to work for a low commission or fee. The contractor, in turn, may cheat governments by not paying all work-related taxes that are due for pension and unemployment benefits or underpay workers (Vaupel and Martin, 1986). Since contractors often know the circumstances from which their workers come, they know how far to squeeze workers by not paying for all hours worked or charging workers for rides to work, housing, check-cashing, and other services.

The second function of labor markets is to remunerate or motivate workers. There are several major wage systems, including hourly, piece rate or incentive pay, and monthly salaries. Most jobs for hired workers in industrial countries pay hourly wages, while many migrant workers in developing countries are paid monthly wages, especially on plantations.

Piece rate or incentive pay was common in the past when the farm workforce was more diverse, including children and older workers. Under piece rate wage systems when there was no minimum wage, farm employers could hire everyone who wanted to work and not worry about the variance in productivity between workers, since the farm employer paid only for the work accomplished, such as \$25 to pick a 1,000 pound bin of apples. Under piece rate wages, farm labor costs are fixed regardless of labor productivity, but worker earnings vary depending on how fast they work.

Piece rate wages remain common when it is hard to regulate the pace of work, as when workers climb trees to pick fruit and are thus often out of sight of supervisors, and when quality is less important, as when cutting sugar cane or picking oranges that will be processed into juice. However, the introduction of minimum hourly wages for farm workers in most industrial countries and the increased homogeneity of the labor force, who are mostly young migrant men to pick fruit in trees and mostly women to pick berries and flowers, has encouraged more farm employers to pay hourly wages.

Minimum wage laws require all workers to receive at least the stipulated hourly or monthly wage. There is an "iron triangle" between government-set minimum wages, employer-set piece rates, and productivity standards, since determining any two automatically determines the third parameter: worker earnings = piece rate x units of work. For example, if the minimum wage is \$10 an hour and the piece rate is \$20 a bin, the productivity standard is at least 0.5 bins per hour or four bins in an eight-hour day. Employers must "make up" the earnings of slower pickers to the minimum wage, and they may terminate workers unable to pick fast enough at the piece rate they set to earn the minimum wage. If the minimum wage rises 10 percent and piece rate wages do not increase, workers must work faster to achieve the same earnings.

Technology and policy decisions have encouraged more farmers to pay hourly wages. Working supervisors can set the pace for crews of workers, and some employers have workers follow slow-moving conveyor belts on which they place harvested commodities. Since the employer can tell the driver how fast to go, the employer effectively sets the pace of work, reducing the need for incentive pay. Courts in US states such as California and Washington have decided that, since state laws require two 10 minute paid rest breaks during an eight-hour day, employers must pay piece rate workers their average piece rate earnings during these breaks, even though most piece rate workers earn more than the minimum wage (if they did not, the workers would have little incentive to work fast). Ocurts reasoned that not paying workers at their usual piece rate

⁹ Piece rate earnings generally exceed hourly wages. USDA's Farm Labor published data on average piece rate earnings until the mid-1990s, and reported that piece rate earnings were 10 to 15 percent higher than average hourly wages. For example, in July 1992, average US piece rate earnings of \$6.31 an hour were 13 percent higher than the average \$5.56 of hourly paid workers, and in July 1993 the \$6.61 of piece rate workers was 13 percent higher than the \$5.84 of hourly paid workers.

earnings for paid rest periods could encourage workers not to take rest breaks, subjecting them to potential heat stress and other workplace risk factors.

The cost of employing workers includes wages and mandatory and voluntary fringe benefits. Mandatory benefits are those that the employer must provide to workers, such as social security, unemployment and disability insurance, workers compensation for workplace injuries and, health insurance and paid vacations and holidays in some countries. Employers may offer and unions may negotiate additional benefits, including bonuses, housing, and extra pension benefits.

Many governments do not require farm employers to participate in all work-related benefit programs, reasoning that "agriculture is different" and that farm labor costs should be held down to reduce food prices or for other reasons. Fringe benefits can be a significant addition to labor costs for employers (and workers in some countries), and migrants may not derive significant benefits from them if they do not work enough to qualify for pension benefits or are unable to stay in the country jobless and receive unemployment benefits. However, if farmers are exempted from benefit program taxes, local workers may shun farm jobs, and the lower cost of migrants gives farmers an incentive to hire more.

Housing is always a special concern in agriculture. Most farmers live on their farms, and many provide housing on the farm for at least year-round workers. Housing for seasonal workers, who are more often migrants, is less common. Governments have a variety of policies to regulate farm worker housing. Most require employers to provide housing for international migrant guest workers, but some allow farmers to deduct some or all of the cost of this housing from worker wages.

There are often disputes over the quality of the housing provided to especially seasonal migrant workers. Some countries allow farmers to house seasonal workers in tents, and others allow workers to bring tents with them and camp from their cars. Farmers who hire hundreds of workers may build or rent dormitory-style facilities to house workers, raising questions about the standards such housing must satisfy and the rights of unions and others to talk to workers living in camps.

It should be emphasized that many international migrant workers are unauthorized, and that not all live on the farm where they work (migrant workers are much more likely to live on the farms where they work in South Africa or on plantations in Southeast Asia). This means that farm work in California or the UK is akin to nonfarm work, that is, workers live away from the place where they work and find transportation to their jobs. There are often special issues associated with transporting farm workers between homes and jobs in areas without public transportation. Some farm workers drive cars, but international migrants are especially unlikely to have private cars or driver's licenses in the countries where they work. If farmers or supervisors provide transportation for workers, questions arise over the safety of the vehicles used and whether workers can be charged for rides.

The third key labor market function is retention. Most employers have human resource programs to identify and reward the best workers so that they remain employed or return to seasonal jobs next year. However, few farm employers have formal personnel systems to evaluate and retain workers.

Two extremes define typical retention strategies in agriculture. At the one extreme are livestock farmers who hire a few workers year-round and treat them "as part of the family," selecting workers carefully and providing them with housing near the farmer's home. The other extreme is exemplified by farmers who hire crews of workers through contractors and never deal directly with the workers.

Crew-based hiring explains why recruitment and retention are often part of the same labor market function in agriculture. An analogy to obtaining irrigation water may be helpful: a field can be "flooded" with water so that some trickles to each tree or vine, or fields can be irrigated with a drip system that involves laying plastic pipes on or under the rows and dripping water and nutrients to each tree or vine. If water is cheap, farmers flood fields with water, but if water is expensive, farmers may invest in drip irrigation systems.

The analogy to the recruitment and retention of farm workers is clear. In many countries, farmers more often work collectively to flood the labor market with workers, usually by getting border gates opened or left ajar, instead of recruiting and retaining the best local farm workers for their operation, the drip irrigation model. The best way to ensure plenty of irrigation water is to invest in the construction of more dams and canals, and the best way to flood the labor market is to invest in politicians willing to provide easy access to international migrant workers.

3.3 Farm Employers and Workers

International migrants who are employed in agriculture in destination countries are international farm workers. There are no definitive data on such workers, but it is well known that many commercial farms in countries richer than neighboring countries rely on internal and international migrants.

The commercial farms that hire most international and internal migrant farm workers are similar to and different from other employers of migrants such as hotels (Baum, 2012, pp. 7-9). Agriculture has a bewildering array of firms, from global operations that employ a full range of professionals to SMEs in which owners work alongside low-skilled workers. Agriculture is linked to other industries, including banks and input suppliers such as seed, fertilizer, and equipment firms in agriculture and output-sector transport, food-service and retailing operations, while hotels are linked to real estate investors who finance many of them, airlines that transport customers, restaurants and tourist attractions to entertain guests, and credit card firms that facilitate travel and tourism.

Agriculture offers mostly low-wage and entry-level jobs to often young workers unable to get better jobs, that is, farm work is often considered a first rung on the labor market rather than a career. Agriculture is labor intensive, meaning that labor costs can be up to half of production costs, making employers resistant to unions and wage increases. Agriculture offers jobs that are often insecure, with workers on call and expected to report when needed.

Farms have pyramid-style labor markets, with relatively few opportunities for upward mobility. Laborers dominate farm workforces, most are men, and they find few opportunities for upward mobility unless they learn the local language and acquire additional skills. Many farms are family owned, making it hard even for farm workers who acquire skills to become farm operators.

Many farm jobs are seasonal, as with crop farming. With peak-trough employment ratios of two or three to one, the total size of the workforce must be two or three times larger than trough employment in order to avoid "labor shortages." Farmers often give little thought to obtaining seasonal workers when they plant crops, expecting governments to make workers available when needed.

Many of the jobs in agriculture are physically demanding, and can expose workers to job-related risks, e.g. because of chemicals used on farms. Farm jobs often involve lifting and carrying 40 to 60 pound containers over uneven ground: there are often falls and back injuries as workers scramble to earn as much as possible while being paid piece rate wages.

Some buyers of farm produce require farmers to develop food safety compliance systems and undergo third party audits. There are a variety of "fair trade" efforts to assure producers of coffee, cocoa, and other commodities a "fair price" for these commodities in exchange for satisfying labor, environmental, and other standards. Major supermarket chains and buyers of commodities such as McDonald's restaurants are being pressured to establish and enforce labor standards in their supply chains.

Agriculture employs a high share of international migrants in entry-level jobs. When asked why, employer responses center on lack of qualified local workers, the better work ethic of migrants, and sometimes the lower labor costs of migrants, especially if they are excluded from pension and other benefit programs that can add 20 to 30 percent to labor costs. Most farm employers talk of their employees as "team members"

or "partners in production," but most migrants reportedly feel like replaceable cogs in a machine, since they and unions that work with them note how easily employers replace workers who quit or are terminated.¹⁰

Many farms rely on network recruiting, meaning that managers ask current workers to refer qualified friends and relatives to fill vacant jobs. Network recruiting saves employers the cost of recruiting and training new hires, since current workers refer only those who can do the job and take responsibility for training them. Many migrant workers are overqualified, meaning they have more skills than are required to perform their jobs. On many farms, more experienced and productive workers do not receive higher wages that reflect their experience.

Guest workers are often described by farmers as "loyal" because most are tied to a particular employer and job. If fired, guest workers can be forced to leave the country. Domestic workers can change jobs, but many of the better farm employers do not rehire workers who quit during a season to discourage them from seeking higher wages. Some farmers offer bonuses of up to 10 percent of earnings for workers who stay with the employer for the entire season.

4. Case Studies

This section includes four case studies of international migrants in agriculture. In some countries, migrants are mostly legal guest workers expected to depart when their often seasonal jobs end. In others, migrant farm workers are legally admitted foreigners who do farm work seasonally to earn extra money, sometimes legally and sometimes in violation of laws governing work and social benefits. Finally, there are cases such as the US, where most farm workers are unauthorized Mexicans who live in the US year-round. Similarly, mainly Nicaraguan workers live most of the year in Costa Rica while doing farm work, as do Bolivians and Paraguayans in Argentina.

The materials for the case studies were obtained from governments, employers, and unions and NGOs. Data on admissions, wages, and other program parameters were analyzed, compliance with program rules and national labor laws was assessed, and experts from each country reviewed the draft case studies.

Overall conclusions are difficult. For example, guest workers make few complaints about wages and working conditions to authorities, and many return year after year. Farm employers say that this demonstrates guest worker satisfaction with wages and working conditions, while unions and NGOs say that there are numerous violations, but guest workers are afraid to complain for fear of being deported before the end of their contracts or being blacklisted and unable to return in future years.

Table 2 summarizes the major features of four government-managed migrant farm worker programs, beginning with approximate admissions in 2014 before turning to the four major steps in the migration process, viz, admissions, recruitment, employment, and returns. It then summarizes other elements, from governance to conventions to unions.

Table 2. Migrant Programs in Canada, AUS-NZ, Spain, US

	Canada SAWP	Australia SWP NZ RSE	Spain	US H-2A
Number (2014)	30,000	AUS: 2,000 SWP NZ: 6,500 RSE	20,000	100,000
Admissions	Employer-driven, no caps; employer prepares job description; govt approves	Employer-driven; employers fail to recruit local workers & then recruit migrants	Employer-driven; commissions with worker and employer representatives set quotas	Employer-driven, no caps; employer prepares job description; tries & fails to recruit local workers
Recruitment	Sending govt prepares lists; employer selects; 80% returnees; costs of transport shared	Farmers can recruit directly or from lists maintained by sending governments; employers pay half of airfare to NZ; \$500 to AUS	AENEAS- FUTEH used Moroccan ES to recruit women with children; growers pay transport costs and deduct half from worker wages	Employer recruits & names workers to receive visas; employer pays all worker recruitment and travel costs

	Canada SAWP	Australia SWP NZ RSE	Spain	US H-2A
Number (2014)	30,000	AUS: 2,000 SWP NZ: 6,500 RSE	20,000	100,000
Employment	Tied to one employer & job; employer provides housing (except BC); covered by health insurance	Can generally stay up to 6-7 months; employers say Pacific Islanders need 2/3 years to become proficient workers	Most contracts are 3-6 months; workers are guaranteed 18-6.5 hour days of work a month at the minimum wage of EUR 757 a month or EUR 36 a day	Tied to one employer & job (employer coops can shift workers from farm to farm); employer provides housing; max 10 months in US
Return	Worker must deliver sealed employer evaluation to Labor Ministry to be considered for next year	Most workers return with savings, better English, and an improved work ethic; sending govts have re-integration programs	Employers pay return transportation	Worker expected to depart after job/visa ends; employer pays return transportation
Governance	Consular officials visit farms with migrants; annual consultations between govts; employer orgs handle transport	Based on Inter-Agency Understandings; meetings between govts twice a year. Employers & unions participate in RSE, not SWP	Worker and employer orgs involved in program administration in Spain; not in Morocco (govt only)	Sending govt has no official role in program administration; federal and state agencies in US enforce labor laws
ILO + UN Conventions	Canada: no ILO C97 & no ILO C143 & no UN 1990	RSE is only ag worker program cited in ILO good practices database	Spain: yes ILO C97; no ILO C143 & no UN 1990	US: no ILO C97 & no ILO C143 & no UN 1990
Unions	Eligibility varies by province; unions say Mexican govt opposes unionization of SAWP workers in Canada		Spain: workers must normally be employed six months to stand for office in unions. Spanish unions have reps to assist guest workers	H-2As can form or join unions; NC FLOC represents H-2A workers while they are recruited in Mexico & in the US. UFW and CIW represent unauthorized
Notes	Federal program, but many laws governing day-to-day living and working are provincial	RSE: tripartite Horticulture and Viticulture Seasonal Working Group involved. SWP: top-down from govt	Main complaint of guest workers is that employers recruit too many workers; use unpaid days off as disciplinary tool	H-2A program target of many suits alleging that employers prefer H-2A over US workers or do not abide by H-2A contracts
Development	Remittances improve housing & children's health & education	World Bank involved in program design to promote migration-led development on Pacific Islands	Most migrants have little education; development impacts likely to be intergenerational	High share of returnees suggests that any mobility via remittances is intergenerational rather than immediate

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All of the programs are employer led in the sense that employers begin the process of migration by seeking permission to recruit and employ foreign farm workers. The usual procedure is for farm employers to prepare job orders that are approved by a government agency; these job orders include assurances that the farmer will pay minimum wages and satisfy other labor laws. The job orders are posted, and the farmer and government try to find local workers. If this recruitment fails, the farmer is certified or approved to employ foreign workers.

All programs allow farm employers to make the final selection on whom to hire. However, some sending-country governments maintain lists of workers who want to work abroad and have been screened, as in Mexico, Morocco, and Pacific Island countries. After arrival, guest workers are usually tied to one employer for periods ranging from six weeks to 10 months, although some farm employers are cooperatives that shift guest workers from farm to farm. Guest workers may join unions in most countries, and have in Canada and the US; unions in most countries advocate on behalf of migrant workers, seeking equal wages and equal treatment. Workers must normally depart at the end of their contracts, and employers generally pay all or some of their return transportation.

The governance of the programs varies. All are based on some kind of government-to-government agreement except the US H-2A program, which is unilateral in the sense that employers may recruit workers in any of 60+ countries and in any way compliant with sending-country laws. All programs have the goal of filling vacant farm jobs, but New Zealand's RSE, Australia's SWP, and Spain's programs with African and Latin American countries also have explicit promote-development-in-sending country goals. It is hard to evaluate the development effects of the guest worker programs, since most are relatively small and some are new. Some studies suggest that their major development impact is intergenerational, as the children of migrant farm workers get more education and find nonfarm jobs at home or abroad.

The largest program is the US H-2A program, which admits more seasonal farm workers than the other four programs combined. The US program is unique in requiring US farm employers to pay all worker costs, including visa costs, that are primarily for the benefit of the employer. Most H-2A workers are from Mexico, and most are bussed from the US consulates in Mexico where they receive visas to US farms, with workers receiving a food allowance while they are traveling. The H-2A workers employed by the North Carolina Growers Association, largest single employer of H-2A workers with 12,000 jobs certified, are required to join the Farm Labor Organizing Committee and pay 2.5 percent of their wages in dues.

The Canadian SAWP is often touted as a best-practice model in international discussions. There are annual consultations between governments, and input from Canadian farm employers but not unions. As in other countries, once farm employers are certified to recruit guest workers, almost all continue to do so year-after-year, so that farm employers anticipate receiving experienced workers.

The Australian SWP and New Zealand RSE are newer than the other programs and relatively small, but distinguished by their emphasis on promoting development in the Pacific Islands from which migrants come. There are many similarities between the programs but also differences that help to explain why NZ admits more than three times more migrants than Australia despite a much smaller agriculture. NZ wages are lower, more NZ fruits and vegetables are exported to Europe and must satisfy supply-chain standards, and there are fewer irregular and backpacker workers available in NZ, helping to explain why NZ farmers have embraced the RSE more than Australian farmers turn to the SWP.

Spain draws migrant workers from Eastern Europe, Morocco and other African countries, and Ecuador and other Latin American countries. There are many programs, and a great deal of local administration and experimentation, as with selecting Moroccan women with young children to pick strawberries in southern Spain. Wages are relatively high for legal workers, but some complain of too many workers and thus little work.

The focus of this paper is on government activities in the four case study countries. However, union and employer groups are also active in improving wages and working conditions. The International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF) includes over 400 unions in 126 countries with a combined membership of over 12 million whose goal is to help

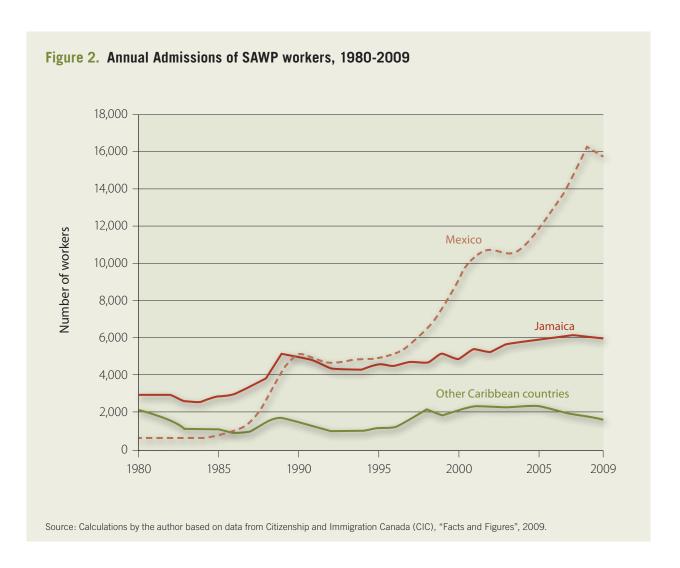
member unions to improve wages and working conditions throughout the food supply chain. The IUF's 2008 handbook on migrant workers explains why the number of migrant workers is increasing as food supply chains are globalized and supermarkets put downward pressure on grower prices, what unions can do to inform, organize and represent migrants, and what government policies improve migrant rights. The IUF has a 12-point charter of rights for migrant workers in agriculture that includes equal pay for equal work and no discrimination or child labor.

The International Organization of Employers and its constituent national bodies have recognized problems in recruiting migrant workers, where high fees and lack of transparency can lead to trafficking and forced labor. The IOE has endorsed no-fee and fair-hiring initiatives (IOE, 2014). Employers often pay recruitment fees and other migration costs for high-skilled workers, where demand often exceeds supply, but low-skilled workers often face relatively high migration costs as the number of workers seeking foreign jobs frequently exceeds the number of jobs available.

4.1 Canada

4.1.1 Caribbean and Mexican SAWP

The Seasonal Agricultural Workers Program (SAWP) has been admitting Caribbean workers since 1966 and Mexican workers since 1974 and is often considered a model BLA to admit seasonal workers to fill seasonal jobs. Procedures to recruit workers and to protect them while they are employed abroad are spelled out



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in government-to-government MOUs¹¹ and employer-worker contracts (www.esdc.gc.ca/eng/jobs/foreign_workers/agriculture/seasonal//index.shtml).

The SAWP officially "matches workers from Mexico and the Caribbean countries with Canadian farmers who need temporary support during planting and harvesting seasons, when qualified Canadians or permanent residents are not available." There are about three Mexican workers admitted for each Jamaican, the second-largest origin country. In 2012, some 29,000 farm jobs were certified to be filled with SAWP workers, about the same as in previous years. Two thirds of SAWP workers were in Ontario, almost 20 percent in British Columbia, and 10 percent in Quebec.

4.1.2 SAWP Admissions

The admissions process begins with Canadian farmers who try to recruit Canadian workers by offering the higher of the minimum or prevailing wage;¹² Canadian minimum wages averaged C\$10.67 in summer 2015.¹³ If efforts to recruit Canadian workers fail, and the government determines that the presence of SAWP workers will not depress wages of similar Canadian farm workers, farmers are certified by Service Canada to recruit SAWP workers by promising them at least 240 hours of farm work for at least six weeks of work.¹⁴

SAWP workers may stay in Canada up to eight months, and they stay an average 22 weeks or 5.5 months, often working 60 to 70 hours a week. About 2,000 Canadian farms hire SAWP workers. Hydroponic or greenhouse tomatoes are an especially important employer of SAWP workers. Canada is the largest producer of greenhouse tomatoes in North America, and two-thirds of Canada's greenhouse tomatoes are grown in Ontario, where Leamington is the self-described tomato capital of the world. Production peaks between April and November, when long hours of daylight contribute to average yields of over 500 metric tons per hectare.

Canadian farmers specify or "name" over three-fourths of the SAWP workers they want to hire, and rely on non-profit organizations created by farmers to transport SAWP workers to Canada: Foreign Agricultural Resource Management Service (FARMS) in Ontario and FERME in Quebec. Mexico's Department of Labor maintains lists of workers who would like to be selected to work in Canada, and employers can select from these lists if they do not have enough named workers. Many Canadian farmers ask current workers to refer friends and relatives if more workers are needed, so that networks rather than sending-country lists are the primary means of recruiting additional workers.

Mexican workers are not supposed to pay recruitment fees, but some do. On June 23, 2008, Canadian Border Services Agency inspectors asked 80 Mexicans with valid SAWP permits whether they had paid recruitment fees in Mexico. When the workers responded yes, they were not admitted to Canada's BC province to work. CBSA says that workers who pay recruitment fees can be denied entry into Canada because they may not leave at the end of their work contracts.¹⁵

Both employers and workers sign contracts that spell out wages and working conditions and deductions. Most farmers advance the cost of airfare and visas (C\$155), but deduct some travel and other costs from workers' wages. Employers must enroll SAWP workers in provincial health insurance programs, and SAWP workers and their employers pay premiums for the (un)employment insurance program even though SAWP workers are generally not eligible for benefits, since they cannot remain unemployed in Canada looking for

¹¹ The MOUs between Canada and Mexico, Jamaica, and other Caribbean countries are intergovernmental administrative arrangements, not binding international treaties.

¹² The prevailing wage can be that determined by HRDC for the work in question or the wage paid by the farmer to Canadian workers doing similar work.

¹³ Canada's minimum wage varies by province, and was \$11 an hour in Ontario, \$10.25 in BC, and \$10.55 in Quebec in summer 2015.

Most discussions of available Canadian workers refer to insufficient "reliable" local workers, that is, there are unemployed Canadians, but they do not want to fill seasonal farm jobs.

¹⁵ For details see: http://migration.ucdavis.edu/rmn/more.php?id=1328.

¹⁶ British Columbia does not allow farmers to recoup transportation costs from SAWP workers, but does allow farmers to deduct six percent of gross wages or a maximum C\$450 to cover housing costs from SAWP workers' wages. The Mexican consulate in BC handles employer requests for SAWP workers and arranges for workers to travel to BC.

jobs. Employers offer free housing to SAWP workers on their farms that is inspected by Canadian authorities before workers arrive and by government liaison agents from Jamaica and Mexico after workers arrive.

Farmers evaluate each SAWP worker at the end of the season. SAWP workers are required to present their employer's evaluation to a government agency at home to be selected for the next season. Farmers and farm organizations can "blacklist" particular workers and not hire them in the future, and government agencies in sending countries can blacklist particular Canadian famers and not approve sending workers to them. However, Canadian famers blacklisted by the Mexican government can turn to the Caribbean for workers.

FARMS, FERME and other farmers' organizations that bring SAWP workers to Canada and deploy them to member farms are involved in reviewing the operation of the program in periodic meetings with the Canadian, Mexican, and Caribbean governments. There is no formal role for workers organizations in these review-of-SAWP operations meetings, and sending country governments represent the interests of their workers. Mexican and Caribbean government liaison officers interact with workers from their countries while they are in Canada. However, some SAWP workers complain that their government's officials are more interested in maximizing the number of Canadian jobs available to their citizens rather than dealing with the grievances of particular workers.¹⁷

Most Caribbean workers admitted under the SAWP are from Jamaica. Jamaica and most other Caribbean governments require SAWP workers to agree to have 25 percent of their Canadian wages deducted and sent to a liaison office in Canada, which keeps five percent and forwards 20 percent to the worker's account at home. Some workers complain of delays in receiving these forced savings at home and the low exchange rate used to convert their savings into Jamaican currency. Members of Jamaica's parliament nominate new workers to participate in SAWP, and the Jamaican government in 2004 promised to ensure that workers who are nominated have experience doing farm work.¹⁸

4.1.3 NOC Low-Skills

In addition to the SAWP, farmers can hire foreign workers under the agricultural stream of the Pilot Project for Occupations Requiring Lower Levels of Formal Training (NOC C&D Pilot), a unilateral program that offers fewer protections for guest workers. The NOC C&D Pilot began to admit guest workers to fill low-skill jobs in 2002, and the number admitted more than doubled from 101,300 in 2002 to 251,200 in 2008. Most NOC C&D Pilot workers fill year-round nonfarm jobs for up to two years, with a two-year renewal possible, but some fill farm jobs.

An agricultural stream under the NOC C&D Pilot admitted almost 8,000 foreign workers in 2012, mostly Guatemalans employed in Quebec. The Guatemalan-Quebec program was developed with the help of the International Organization for Migration to ensure clean recruitment, but has been marred by charges that Guatemalans pay high fees to be selected and must deposit \$500 as a surety bond in Guatemala that they forfeit if they do not return.

Foreigners admitted under the SAWP can return to Canada indefinitely, while foreigners admitted under the NOC C&D Pilot can stay in Canada up to four years. If they then leave Canada for at least four years, NOC guest workers can return for another four years. The SAWP is governed by bilateral MOUs, and recruitment is overseen by a government agency in the sending country, 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).

Some workers and NGOs say that government liaison officers in Canada generally favor Canadian employers rather than their citizen workers because they value high-wage jobs and remittances more than worker complaints. If workers make complaints, government liaison officers discuss them with employers, but the remedy may be removing the worker from the farm and returning him to the country of origin.

¹⁸ Most Caribbean countries allow returning workers to bring \$500 worth of electronics and other goods home duty free at the end of their contracts; many pack these goods in barrels to send home. See http://migration.ucdavis.edu/rmn/more.php?id=824.

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The SAWP and the agricultural stream of the NOC C&D Pilot are limited to fruits, vegetables, horticultural crops, tobacco and sod, while the general NOC C&D is open to all farm employers, including livestock producers. 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. The agricultural stream of the NOC C&D Pilot allows employers to require guest workers to cover their transport costs, and farm employers can charge guest workers up to C\$30 a week for employer-provided housing, which can be off the farm (SAWP housing must be on the farm where the migrant works).

4.1.4 Unions and Development

Most farmers are satisfied with the SAWP, but the United Food and Commercial Workers (UFCW) union calls the SAWP «Canada's dirty little secret.» The UFCW operates Agriculture Workers Alliance support centers for SAWP workers and has tried to organize some of them. Mayfair Farms in Portage La Prairie, Manitoba signed a three-year contract in June 2008 with a UFCW local, the first covering SAWP workers, that linked future wage increases to the provincial minimum wage and provided a C\$1 an hour overtime premium for work done after 70 hours a week.

SAWP workers were dis-satisfied with the contract. Some complained that the UFCW negotiated a C\$0.15 an hour raise, but charged them \$4 a week in union dues. Others said that they wanted to work 12 to 14 hour days and seven days a week, but Mayfair limited them to 70 hours a week to avoid the overtime pay required by the contract. In June 2009, Mayfair's SAWP workers voted 26-0 to decertify UFCW. Migrant advocates charged that the Mexican consul warned Mayfair's SAWP workers they could be blacklisted if they did not vote for decertification.¹⁹

The UFCW has also had mixed experiences in British Columbia. The BC Labor Relations Board certified the UFCW to represent 40 SAWP workers at Greenway Farms in Surrey, BC in August 2008, and the UFCW won an election to represent 70 SAWP workers at Sidhu & Sons Nursery in BC in March 2010. In these cases, the UFCW represented only the SAWP workers, not the Canadian workers on these farms.

In the Sidhu case, after a vote to decertify the UFCW, some Sidhu SAWP workers petitioned the BC Labor Relations Board to overturn the decertification vote, alleging that Mexican labor attaches spurred the decertification effort. The Mexican government's effort to have its conduct before the decertification in the Sidhu case declared immune from Canadian law was rejected in February 2015. The Mayfair and Sidhu cases highlight what the UFCW says is the Mexican government acting on behalf of Canadian employers rather than Mexican SAWP workers in order to preserve SAWP job opportunities for Mexican workers.²⁰ These examples demonstrate the contentious nature of the relationships between employers, SAWP workers, unions, and the Mexican government.

The North-South Institute supported several studies of the SAWP program that concluded it helped Canadian farmers to recruit and employ reliable low-skilled workers. Verma (2002) summarized these studies and emphasized the inherent difficulty meeting SAWP objectives, viz, it is very hard to administer the SAWP in ways that avoid depressing wages and working conditions if most workers in an area are SAWP migrants who can lose their jobs and the right to be in Canada by complaining. Workers who want to be named by their employer to return next season are unlikely to complain.

The Institute for Research on Public Policy (IRPP) interviewed 600 Mexican and Jamaican farm workers in 2012 and found that most had returned to Canada for an average eight seasons. Many SAWP workers complained of isolation on the farms where they worked, but two thirds of those interviewed by the IRPP said they would like to return to work seasonally and eventually to become Canadian immigrants (Hennebry, 2012).

¹⁹ For details on the Mayfair Farms case see: http://migration.ucdavis.edu/rmn/more.php?id=1488.

²⁰ https://migration.ucdavis.edu/rmn/more.php?id=1893.

The SAWP is an example of a circular migration program that fills seasonal jobs with workers from low-er-wage countries, most of whom return year after year. The Mexican government in a 2015 press release called the SAWP "a model of bilateral cooperation between the two countries, guaranteeing employment to farm workers and making it possible to maintain a temporary migration flow that is orderly, circular and secure, and above all, one that fully respects the workers' labour, social and human rights."²¹

Researchers often point out flaws in the SAWP that open gaps between goals and outcomes. The fact that over 85 percent of SAWP workers have been employed in Canada in previous years means that training costs are low and worker productivity rises with experience, but experienced workers may not receive higher wages. Hennebry and Preibisch (2012) praise the cooperation between governments, transparency in selection of workers, and the availability of health insurance for SAWP workers in Canada, but note that there is no formal program to recognize worker qualifications in Canada or after their return to Mexico. There is also no path for SAWP workers to become Canadian immigrants. However, if the alternative to SAWP is illegal migration and contractors assembling crews of workers to fill seasonal farm jobs, as in California and other areas of the US, the SAWP can be considered a "model despite flaws." (Basok, 2007)

There is less evidence that the SAWP has promoted stay-at-home development in worker areas of origin, as may occur if returned workers invest their remittances to expand farms and start small businesses. Most returned SAWP workers improved their housing and spent more on their children's health and education than similar families without migrants and remittances, but many continue to migrate year-after-year to fill seasonal farm jobs in Canada. The upward mobility in the SAWP case may be inter-generational, as the children of SAWP workers who obtained more health care and education elect to stay in Mexico.

4.2 New Zealand and Australia

New Zealand has a Recognized Seasonal Employers (RSE) scheme, and Australia a Seasonal Worker Program (SWP), to allow workers from 11 Pacific Island Countries (PICs) to fill seasonal farm jobs. The labor and foreign affairs ministries in each receiving country, and those in sending countries charged with labor and development, are involved in the design and administration of the programs, which aim for win-win-win outcomes, viz, filling jobs in destination countries, enabling workers to earn higher wages and send home remittances, and promoting development on Pacific Islands that often offer few opportunities for low-skilled workers to increase their earnings.

The New Zealand RSE is older and larger than the Australian SWP: the RSE involved 6,500 Pacific Island workers in 2013-14, versus 2,000 in the SWP; the RSE ceiling for 2015-16 is 9,000 versus 4,500 for the SWP (Curtain, 2015). Wages are lower in New Zealand, from which many fruits and vegetables are exported to Europe, where quality standards are exacting. Wages are higher in Australia, where many producers aim to keep labor costs low to sell fruits and vegetables in domestic markets and to Asian countries. New Zealand producers receiving higher prices are less concerned about labor costs compared with Australian producers who focus on delivering fruits and vegetables to the country's two dominant supermarket chains on time and at low cost.

Pacific island nations are linked with Australia and New Zealand by the Pacific Agreement on Closer Economic Relations (PACER), which is being renegotiated as PACER Plus. Pacific island nations and Timor Leste, which have over 11 million people, want more freedom of movement, so that their citizens can migrate to Australia and New Zealand to fill both farm and nonfarm jobs.²²

 $^{^{21}\} http://embamex.sre.gob.mx/canada_eng/index.php/press-releases/573-jan2015/5453-ptat15begins.$

²² http://dfat.gov.au/trade/agreements/pacer/pages/pacific-agreement-on-closer-economic-relations-pacer-plus.aspx.

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4.2.1 New Zealand Recognized Seasonal Employers

The New Zealand RSE began April 30, 2007 after farmers complained of too few workers to harvest wine grapes, kiwifruit and apples. New Zealand exports half of the commodities produced on 5,500 commercial horticultural farms with the help of a peak 40,000 seasonal workers in March-April, including 60 percent who are hired in the Hawke's Bay and Bay of Plenty regions. With fewer un- and under-employed New Zealand workers and Working Holidaymakers (foreign youth earning money while touring New Zealand) available to harvest their crops, gangmasters or contractors filled the gap with crews of foreign students and other migrants, some of whom were not authorized to work.

Uncertainty about the supply of harvest labor and concern about illegal work prompted New Zealand farmers and the New Zealand government to look for a new source of legal workers to fill seasonal jobs. The World Bank, noting that half of the populations of the PICs are under 24 and that 60 percent of youth are NEETs, that is, not in education, employment, or training, was seeking more wage work for Pacific Island workers, including in richer ANZ (Luthria et al 2006; Haque and Truman, 2014).

The final factor effectuating the RSE was the UN's High-Level Dialogue on migration and development in fall 2006, which urged governments to open more channels for migrants from lower-wage countries to increase remittances and speed development. This development benefit was highlighted in a New Zealand government submission to an Australian Parliamentary Inquiry in 2015, which highlighted the triple wins from the RSE: filling vacant jobs in New Zealand, generating more jobs for New Zealand workers, and promoting development in the Pacific Islands (New Zealand Government Submission, 2015)

As with other seasonal farm labor programs, the Australia and New Zealand programs give first chance at farm jobs to local workers. This means that farmers must try and fail to recruit local workers by offering at least the minimum wage or the prevailing wage for the work to be done. There have been few complaints of New Zealand farmers refusing to hire available local workers. The New Zealand government appears to have been relatively effective in reducing the use of labor contractors who provide unauthorized farm workers.

Once certified as requiring Pacific Island Country (PIC) workers, New Zealand farm employers must offer PIC migrants contracts that guarantee them work for at least 240 hours and 30 hours a week at the minimum wage of NZ\$14.75 (US\$9.65) an hour after April 1, 2015 and provide the migrants they employ with housing, health insurance and pastoral care, such as transportation for banking and religious services. Farmers must pay half of the cost of a return ticket for PIC migrants.

New Zealand employers can recruit Pacific Island workers directly, usually with the help of recruitment agents, or select workers from lists prepared by local governments. For example, the Tongan government used village committees to rank the «work-ready» men and women who wanted to work in New Zealand by criteria such as honesty, being a hard worker, and knowing some English. About 5,000 of Tonga's 67,000 working-age adults registered to work in New Zealand in 2008, representing 20 percent of Tongan men between 20 and 60.

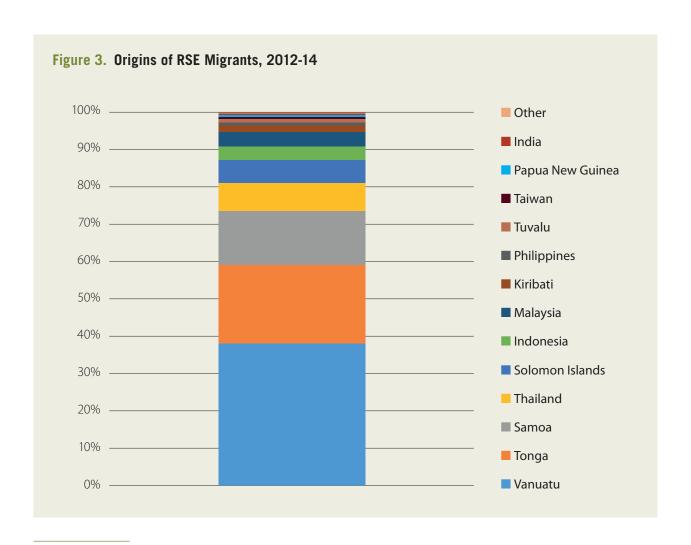
Before departing for NZ, migrant workers must obtain passports and undergo health checks and police clearances as well as complete a pre-departure orientation. Most PIC migrants remain in NZ for up to seven months, but migrants from Kiribati and Tuvalu can stay in NZ up to nine months because of their higher travel costs.

The number of RSE migrants was capped at 5,000 until 2008, when the ceiling was raised to 8,000 and then to 9,000 in 2014. There have been about 7,000 RSE migrants in New Zealand in recent years, making them almost 20 percent of peak employment. Pacific Islands' guest workers earned an average NZ\$2,400 (US\$2,000) a month for an average five months in New Zealand in recent years, and remitted half of what they earned to their families. The major skills acquired in New Zealand include better English, improved abilities to manage time and money, and perhaps an improved work ethic. However, the fruit and wine grapes produced in New Zealand are not produced in the Pacific Islands, making experience with these crops of limited use at home.

Employers say that, because most RSE migrants do not have experience picking fruit, newly arrived workers require training and a break in period to become proficient workers. However, since most RSE migrants return year-after-year, employers recoup their training expenses via the higher productivity of returning workers. The workers have few complaints, although some note that they incur living costs when there is no work and that some employers set piece rates so low that workers earn only the minimum wage. Piece-rate workers normally earn more than the minimum wage, giving them an incentive to work fast without close supervision.²³

Evaluations suggest the RSE has been successful in filling jobs with rural and less educated Pacific Islanders who earn more in New Zealand than they would earn at home. The third win is faster development. If migration speeds development, its effects should soon be visible in migrant-sending villages. A New Zealand Government Submission in 2015 reported that RSE migrants had average net earnings of NZ\$5,500 a year (US\$3,667).

Gibson, McKenzie, and Rohorua (2008) found that RSE migrants averaged 17 weeks of work in New Zealand and had average net earnings of NZ\$5,700 (US\$3,400) after paying for half of their airfare and living expenses. A December 2010 evaluation concluded that per capita incomes in Pacific Island households with at least one member in the RSE were 40 percent higher than similar households without migrants, suggesting that migration to New Zealand raised incomes far more than microfinance and conditional cash transfers in other developing countries. Households with participants in the RSE were also more likely to improve their homes, buy durable goods, and keep 15-18 year olds in secondary school.



²³ Some New Zealand employers had to raise piece rates so that RSE workers earned at least the minimum wage at the rate at which they were able to work.

Vanuatu provided over a third of RSE migrants in recent years, followed by 20 percent from Tonga, 15 percent from Samoa, and almost 10 percent from Thailand; over 80 percent of RSE migrants are from seven Pacific Island countries. Most are men: 85 percent of those admitted from Vanuatu under the RSE were men in 2012-13, as were 88 percent of those from Tonga admitted to Australia under the SWP (ILO, 2015b).

There are several looming tensions. First, farm employers prefer experienced workers to benefit from their higher productivity. However, rehiring experienced workers can mean fewer opportunities for new Pacific Islands workers to participate, which may slow the development impacts of working abroad.

Second, more workers want to be employed in New Zealand than there are jobs. If the pool of workers from which New Zealand employers can select increases faster than NZ job opportunities, the result may be slower development if workers who anticipate being selected shun local opportunities in anticipation of going to New Zealand. Pacific Island governments may begin to compete to have their citizens selected to work in New Zealand, which could erode labor standards and worker protections over time.

The third issue is the future of the RSE. The high value of the New Zealand dollar and welfare reforms that may add to the supply of farm workers in New Zealand may keep the number of guest workers below the 9,000 quota. If NZ fruit and wine exporters can achieve some kind of a fair trade label for commodities produced with the help of Pacific Island guest workers, they may continue to hire them in order to receive premium prices. GlobalGap, a European organization that certifies farm compliance with Good Agricultural Practice in food safety, sustainable production methods, worker and animal welfare, and responsible use of water, compound feed and plant propagation materials, has ten times more accredited producers in NZ than in Australia.

The Horticulture and Viticulture Seasonal Working Group, which includes representatives of government, employers, and unions, is charged with developing medium- and long-term strategies for the NZ horticultural industry. NZ industry groups say that the availability of reliable PIC migrants has encouraged them to expand production and exports of horticultural commodities.

4.2.2 Australia's Seasonal Worker Program

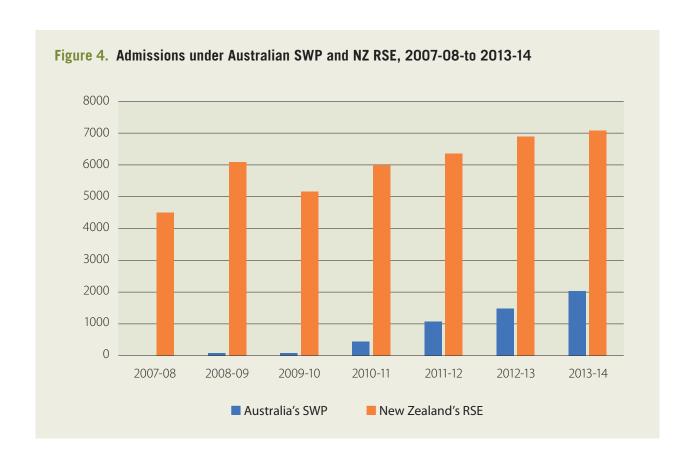
Australia's Pacific Seasonal Worker Pilot Scheme (PSWPS) was launched in 2008, with up to 2,500 seasonal work visas a year available to PIC migrants. Even though Australia has a far larger agricultural sector, with horticulture employing a peak 75,000 to 100,000 workers each year (Curtain, 2015), including 40,000 working holiday makers, farmers complained that they lost crops for lack of harvest labor. Fewer Pacific Islanders have been admitted to Australia than to New Zealand in recent years, about 2,000 a year in Australia versus 6,500 in New Zealand in 2013-14.

The reason for relatively few PIC migrants in Australia is because local Australian workers and working holidaymakers have been available to fill seasonal farm jobs.²⁴ As in New Zealand, local contractors assembling crews of sometimes unauthorized immigrants and others compete to provide workers to farmers at costs that can be lower than hiring PIC migrants.²⁵ Working holidaymakers or backpackers are foreign youth from many countries who are in Australia to work and holiday on visas that are valid for up to a year.

Since 2006, backpackers can stay in Australia two years if they work at least 88 days in agriculture, forestry, fishing, construction and mining during their first year. About 90 percent of backpackers who stayed two years worked in agriculture during year one, and about 90 percent of farmers said they were satisfied with

²⁴ Australian farmers in 2008 said they needed 22,000 more seasonal workers, and that up to A\$700 million in fruit rotted for lack of labor to pick it. See http://migration.ucdavis.edu/rmn/more.php?id=1349

²⁵ For example, the minimum wage in the Swan Hill area for farm workers was supposed to be A\$17 in 2008 when some contractors reportedly paid A\$12 and charged workers for housing and rides to work. Contractors officially received a five percent commission from the farms to which they supply workers, but many augment this commission with other charges levied on workers. Local reports are that larger farms run by investment partnerships are most likely to use reputable contractors. http://migration.ucdavis.edu/rmn/more. php?id=1349



backpackers (Curtain, 2015). Farmers do not have to advertise for Australian workers before hiring backpackers, although they must try to recruit local workers before hiring PIC migrants.²⁶

Australia renamed the PSWPS the Seasonal Worker Program (SWP) and made it permanent July 1, 2012 (http://employment.gov.au/seasonal-worker-programme). The annual quota was raised to 12,000, and SWP workers were allowed to work in both crop agriculture and hotels in rural areas. SWP workers must be offered at least 14 weeks of work and enough work in Australia to gain a "net financial benefit" of at least A\$1,000 (about one month's work).

PIC migrants can stay in Australia up to six months without their family members (nine months for workers from Kiribati, Nauru, and Tuvalu). Three-fourths of the SWP workers admitted in recent years have been from Tonga, although their share is falling as more workers arrive from Vanuatu and Samoa.

Table 3. SWP Arrivals in Australia, 2012-13-2014-15

	Total	Tonga	Share	
2012-13	1,422	1,160	82%	
2013-14	1,958	1,454	74%	
2014-15	2,691	1,813	67%	
2014-15 data through May 31, 2015				

There are two backpacker visas: 417 for developed countries, with 183,000 visas granted in 2013-14, and 462 for developing countries, with 10,000 visas granted in 2013-14. Until 2015, only those with 417 visas could stay a second year after working in selected sectors their first year, but now all backpacker visa holders can stay two years with qualifying work in their first year. Howes expects more backpackers to switch from horticulture to tourism in Northern Australia to earn a second-year visa, and notes that, with backpackers since 2015 able to work for one employer for 24 months, backpackers essentially have two-year temporary work visas with employers who do not have to test the labor market for Australian workers. (http://devpolicy.org/a-big-week-for-pacific-labour-mobility-backpacker-reforms-20150625/)

A 2015 survey of Australian farmers found that almost half did not know about the SWP and, of those who knew about the SWP, two-thirds had "no need" for PIC migrants (Doyle and Howes, 2015). Some Australian farmers complain that the fees charged by the three officially approved labor hire-firm intermediaries are too high, and that some of the PIC migrants selected to work on their farms «know how to read a pay slip but don't know what an orange is,» suggesting a weak work ethic.²⁷ Connect Group, one of the approved labor providers, in turn complained that some farmers prefer to use local contractors and unauthorized workers rather than SWP migrants.²⁸

Most of the Approved Employer farmers using the SWP are satisfied, saying that PIC migrants are "more dependable, enthusiastic and productive than local workers or working holidaymakers" (Doyle and Howes, 2015). Many of the farmers using the SWP to obtain PIC migrants are larger and grow crops that have relatively long growing seasons. In surveys, farmers want the government to shift the cost of transportation to workers (the government allowed SWP employers to pay and then deduct the cost of domestic travel from worker wages in 2015), to eliminate requirements to provide housing for SWP workers, and to end required advertising to find local workers.²⁹

Doyle and Howes concluded that the SWP must be made cheaper for employers if the government wants to increase the number of PIC migrants. Farm employers may also have to reorient from shorter- to longer-term thinking. Backpackers may at first glance seem cheaper than PIC migrants because there is no need to try to find local workers before hiring them and no requirement to provide backpackers with accommodation and other services. However, if backpackers are employed only four to six weeks, the employer may have to train a replacement. A PIC migrant employed for six months, and returning year-after-year, may prove cheaper over time if productivity increases with experience.

The SWP operates similarly to the New Zealand RSE. Australian employers must first try to recruit local workers and, if this recruitment fails, they can be certified to employ PIC migrants. Employers must pay the cost of international transportation, but international airfare of more than A\$500 can be deducted and all costs from the worker's arrival place in Australia to the workplace can be deducted from worker wages. PIC migrants have 15 percent of their wages deducted and sent to Australian tax authorities, but do not receive refunds of these taxes paid, and their employers pay 9.5 percent of gross wages for superannuation (pension) from which the migrants do not benefit.

PIC migrants must be guaranteed at least 30 hours of work a week, and employers must show that employment in Australia is in the migrant's best interest, although the previous requirement that employers offer a minimum 14 weeks of Australian employment has been dropped. Contractors are allowed to employ PIC migrants if they have been in business at least five years and "have a record of compliance with immigration and workplace relations requirements." Curtain (2015) concludes that the RSE aims to help NZ farmers to increase production while the SWP aims to contribute to development in PIC countries.

4.3 Spain: Diverse Migrants

Spain was a major magnet for migrants in the first decade of the 21st century, as the country experienced an economic boom fueled by low interest rates. The number of registered foreigners in Spain rose from 924,000 in 2000 to 5.4 million in 2010 (Arango, 2013). The number of migrants in Spain has since decreased to 4.4 million in 2015, when foreigners were 9.5 percent of 46.4 million residents.

The major reason for the decreased number of foreigners is fewer jobs: employment in Spain fell from 20.5 million at the end of 2007 to 17.8 million in mid-2015, when there were 4.1 million unemployed, an unemployment rate of almost 20 percent. The largest groups of foreigners in Spain in 2015 were Romanians,

²⁷ Migration News. 2010. Australia, New Zealand. Vol 17. No 2. https://migration.ucdavis.edu/mn/more.php?id=3603.

²⁸ Approved SWP employers are listed at: http://employment.gov.au/seasonal-worker-programme.

²⁹ One recruiter asserted that: "The farmer's request should be sufficient evidence that a genuine need exists and that there are an insufficient amount of reliable workers to fill the need." http://devpolicy.org/reforming-the-swp-a-recruiters-perspective-20150227/.

707,000 and Moroccans, 686,000; more nationals of both countries left than arrived in recent years due to recession.³⁰ Among the 464,000 foreigners who were unemployed in August 2015, two thirds were non-EU nationals, usually Moroccans, a sixth of whom reported that they had never held a job in Spain, that is, they were looking for a first Spanish job. Romanians (24 percent) and Moroccans (22 percent) accounted for almost half of the foreigners receiving unemployment benefits in Spain in summer 2015.

Migration is regulated by the Law 4/2000, the Foreign Workers Act of 2000 and subsequent amendments. Bilateral agreements were made with Columbia, Ecuador, and Morocco in 2001, Dominican Republic in 2002, Mauritania in 2007 and Ukraine in 2009. BLAs with Eastern European countries that have since joined the EU, Poland and Romania in 2002 and Bulgaria in 2003, have been superseded by free mobility between EU member states.

A provincial commission with representatives of federal, provincial and local authorities, and including employer and worker representatives, agrees on the number of migrant farm workers to be admitted and the details of when they will arrive and depart. Some worker advocates complain that too many migrants are admitted to fill farm jobs, so that migrants are more likely to complain of not enough work rather than too many hours.

4.3.1 Spanish Agriculture

Spain has 12.5 million hectares of arable land, including 4.7 million hectares in trees and vineyards, 3.7 million of which are irrigated (FAO, 2016).³¹ The sixth of Spanish farm land that is irrigated accounts for half of the value of Spanish crops and over half of Spain's farm exports. Much of Spain's central plateau is semiarid, and some crop land is fallowed each year for lack of water, so that labor-intensive agriculture is concentrated in irrigated coastal areas.

The value of farm commodities in 2011 was \$34.6 billion, and was led by olives worth \$6.2 billion, pig meat worth \$5.5 billion, grapes worth \$3.3 billion, and milk worth \$2 billion. The most valuable vegetable was tomatoes worth \$1.4 billion. Food exports were \$22 billion in 2011, including \$3 billion worth of wine, \$2.6 billion worth of olive oil, and \$2 billion worth of pork. Spain is a major producer and exporter of citrus, strawberries, and vegetables such as tomatoes.

The agricultural labor force in Spain was 890,000 in 2013, while the total labor force was 23 million, making the farm work force less than four percent of the Spanish labor force.³² There were an estimated 100,000 internal migrant farm workers in 2000, with many moving with the harvest from southern coastal areas producing fruits and vegetables to orange groves in Valencia to the vineyards of Rioja. Seasonal farm earnings were supplemented by unemployment benefits that allowed farm workers in Andalucía and Extremadura to collect up to 75 percent of the minimum wage in benefits for six months after 35 days of farm work. The benefits system was revised and made less generous, and foreign-born workers now dominate the seasonal work force.

The southeastern province of Almeria has hundreds of greenhouses (a sea of plastic) that produce vegetables for domestic consumers and to export for up to eight months a year, while 90 percent of Spanish strawberries are produced in the southwestern province of Huelva where there is a shorter season, from February through May. Most of the farms producing labor-intensive commodities in Almeria rely on a mix of legal and unauthorized migrants to perform labor-intensive tasks.

In Huelva, there are over 6,000 hectares of strawberries producing about 300,000 tons a year. Production peaks in April-May, and over 85 percent of Huelva's strawberries are exported; many growers are adding

³⁰ These updated data are from an unpublished report prepared by Piotr Plewa for KNOMAD.

³¹ These data are from FAO: http://faostat.fao.org/CountryProfiles/Country_Profile/Direct.aspx?lang=en&area=203.

³² Another source reports 1.1 million full-time equivalent employment in Spanish agriculture in 2004 and 2.3 million farm workers, a two-to-one ratio of workers to jobs. Almost 70 percent of agricultural workers were men.(www.eurofound.europa.eu/observatories/eurwork/comparative-information/national-contributions/spain/representativeness-of-the-social-partners-agricultural-sector-spain).

blueberries and raspberries (FIDH, 2012, p. 8-9). Most berry growers belong to cooperatives such as Freshuelva, which estimates that Huelva strawberry revenues are EUR250 million a year. Some Huelva growers are producing in Morocco, where daily wages of about EUR5 a day are an eighth of the EUR40 a day wage in Spain.

Spain may have the most diverse migrant farm workforce among industrial countries. Most legal foreign guest workers employed in agriculture are Eastern Europeans, followed by Africans (mostly Moroccans), and Latin Americans, especially Ecuadorians. The Latin Americans have the advantage of the Spanish language, but their higher transport costs mean that most are employed in areas with longer seasons, such as coastal vegetables. Many of the Eastern Europeans and Moroccans are women employed for the shorter strawberry picking season.

The special EU-funded AENEAS program in Cartaya recruited Moroccan mothers with young children who stayed at home to pick strawberries in Spain. The number of Moroccan women who were recruited increased after the Moroccan and Spanish governments got involved in 2006, and rose from 2,300 in 2006 to 14,000 in 2009 (FIDH, 2012, p. 21). AENEAS contracts require a daily wage of EUR34 to EUR37 a day for 6.5 hours, employer-provided housing, 33 and medical coverage while employed for three to six months. 4 Most strawberry pickers in Huelva are from Eastern Europe; Moroccans are estimated to be less than 20 percent of the harvesting labor force. 35

AENEAS ended, and was replaced by FUTEH, which added requirements to provide Moroccan workers with at least 18 days of work a month, to pay required social security taxes and not withhold workers' passports, and to pay the return travel costs of workers terminated in their first two weeks in Spain. The 18 work-days-a-month requirement was added because jobless workers in Spain generally cannot obtain unemployment benefits until after 270 days of work.

The main complaint of Moroccan workers was too little work. Employers reportedly recruit too many workers, so that many are employed only the minimum 18 days a month rather than the 25 or more days they want to work, and some report receiving less than 6.5 hours a day and less than the EUR38 daily wage of 2011. With workers scrambling for more work, unpaid days off are a frequent disciplinary tool, especially because employers set productivity standards in spite of contracts that stipulate a per day wage rather than a piece rate and minimum productivity standard. Workers pick berries into eight-box trays that weigh 2.5 kg, and most workers harvest 10 trays in a 6.5 hour day.

4.3.2 Migration Costs

Interviews with almost 200 legal migrant farm workers early in 2014 included workers from Bulgaria, Ecuador, Morocco, Poland and Romania.³⁶ Most had low migration costs to get to Spain, primarily because the EU nationals who dominate the migrant farm workforce had zero costs for items that are common in other migration corridors, from visas to medical exams. All of the workers interviewed had previous Spanish work experience, which lowers migration costs. Most reported that regulations requiring employers to pay at least half of worker transportation costs were enforced. Worker-paid migration costs were generally less than half of a migrant's monthly earnings of \$1,000 a month for full-time work.³⁷

Since the migrant farm workers interviewed had worked in Spain previously, and intra-EU migrants do not require visas or medical checks to seek jobs in Spain, fewer than half of the migrants reported any costs

³³ Representatives of the Spanish unions CCOO and UGT can inspect grower-provided housing to ensure that it has hot and cold water, electricity, and toilets.

³⁴ Spouses and children of workers with contracts in Spain are eligible for health care services in Morocco, although many of those eligible report difficulties obtaining benefits (FIDH, 2012, p. 25).

 $^{^{\}rm 35}$ See: http://migration.ucdavis.edu/rmn/more.php?id=1305.

³⁶ These interviews were conducted by Piotr Plewa in 2014 for KNOMAD.

³⁷ Earnings data were not collected. If workers earned the minimum wage of EUR39.5 or \$54 for a 6.5 hour day, they earn \$270 for a 5-day week or \$324 for a six-day week and \$1,080 to \$1,300 a month.

for passports and even fewer reported costs for visas and medical checks. Travel costs were also low, an average of less than \$30 for internal travel costs in the home country and \$300 for international travel costs. There were marked differences: Moroccans had \$100 in average travel costs, East Europeans \$350, and Ecuadorians, who can stay nine months in Spain, \$1,100.³⁸

Focusing on worker-paid costs incurred by at least 40 migrants finds that transportation costs were two-thirds of average costs of \$530, with a wide variance reflecting the cost of getting to Spain. Employer organizations often arranged transportation on chartered buses to lower transport costs, although some experienced Eastern European migrants elected to fly to save time, even though their travel costs were higher.

Three fourths of the migrants interviewed in Spain did not take out loans to cover migration costs. The quarter that took out loans reported relatively small loans averaging \$350 but debts of over \$500, suggesting high interest rates.

Most of the migrants employed to fill seasonal jobs in Spanish agriculture are from rural areas in Morocco and Latin America; the Eastern Europeans had agricultural backgrounds but included some workers who had been laid off from state-owned factories. Migrating to Spain to do farm work is, for some, an alternative to rural-urban migration within their countries of origin. Most had less than secondary-school educations.³⁹

For example, the Moroccan women often had less than nine years schooling, suggesting that migrating to Spain to do farm work was one way to remain within agriculture while working in a higher-wage country. Many of the Moroccans wanted to settle in Spain, while most of the Eastern Europeans wanted to return to their countries of origin.

Migrants harvesting fruits and vegetables in Spain were mostly unemployed or self-employed in agriculture at home, making it hard to calculate the average wage wedge. Less than a seventh of the migrants interviewed in Spain had wage-paying jobs before migrating to Spain. Of the 40 percent who reported *any* income before migrating to Spain from wage work or self-employment, mean and mode monthly earnings at home were \$160 a month, suggesting that work in Spain increased earnings by an average six times.

4.4 US H-2A

The H-2A program and its predecessors have been admitting foreign farm workers to fill seasonal US farm jobs primarily in the eastern United States since the 1940s. The H-2A program is widely criticized by farm employers and by farm worker advocates, albeit for opposite reasons: farmers think the process to be certified to recruit and employ foreign workers is too cumbersome, while worker advocates charge that the program fails to protect US and H-2A workers. Most H-2A workers filled sugarcane jobs in the 1970s and 1980s and tobacco jobs in the 1990s, but in the twenty-first century there has been diversification, with the number of H-2A workers increasing especially fast in California and other western states that produce most US fruits and vegetables.

The H-2A program allows US farm employers who anticipate labor shortages 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."

³⁸ Spanish employers must pay half of the transportation costs of the inbound workers they recruit. Most advance the entire cost of in-bound transportation and then deduct the worker's share from earnings over the duration of their contract, typically at the rate of EUR90 a month. With employers advancing transportation costs, there is less need for workers to borrow money to travel to Spain.

³⁹ The East Europeans were best educated, but most did not complete secondary school. Many of the Moroccans had less than five years schooling, and the Ecuadorians averaged less than seven years schooling.

The seasonal farm labor market in the United States resembles a revolving door. Newcomers from abroad enter, but most remain seasonal farm workers for less than a decade before moving to non-farm jobs, and their children educated in the US rarely follow their parents into the fields. Definitions of socioeconomic problems suggest solutions, so defining the seasonal farm labor problem in cost-minimizing terms, as farm employers often do, suggests that the solution is to open the border gates to newcomers willing to accept the current wages and conditions. However, defining the farm labor problem in terms of labor market outcomes, such as low wages and earnings, as worker advocates do, suggests government intervention to raise farm worker incomes or to provide poor farm workers and their children with services to mitigate their poverty.

The federal government has had contradictory responses to these different definitions of and solutions to the seasonal farm labor problems. On the one hand, the government accedes to employer requests for foreign workers, even if their presence lowers the rate of increase in wages and slows the productivity-increasing investments that could keep US agriculture competitive in a globalizing world. On the other hand, the federal government supports programs that spend over \$1 billion a year providing services to poor migrant and seasonal farm workers (MSFW) and their children, in part to compensate for low farm wages. This social spending is equivalent to about five percent of what MSFWs earn each year.

As a nation of immigrants, the US government has generally favored immigrants over temporary workers. Immigrants are foreign nationals with visas that allow them to live in the United States and work in US jobs that do not require US citizenship. Immigrants may work in most private sector jobs, join unions and change US employers, and be jobless without losing the right to be in the country. H-2A guest workers, on the other hand, are in the US to fill a particular job, and may generally not change employers or remain in the US after their jobs end.

4.4.1 Mexican Braceros

US law provided no statutory basis for the admission of temporary foreign workers between 1885 and 1952, but exceptions to immigration laws were made several times to admit foreign farm workers. The Immigration Act of 1917 imposed a literacy test on foreigners aged sixteen and older and doubled the head tax to \$8, but exempted farm workers at the behest of farm employers.

US farmers asked the US Department of Labor, which included the Bureau of Immigration at that time, "to admit temporarily otherwise inadmissible aliens" who could not pass the literacy test or pay the tax to fill farm and railroad jobs. The DOL on May 23, 1917 waived the head tax and literacy test for aliens from Mexico and Canada entering the United States temporarily to do farm work (and railroad work in 1917-1918) despite the skepticism of some DOL officials about farmer claims of labor shortages. For example, the assistant secretary of labor at the time, Louis Post, said: "The farm labor shortage is two-thirds imaginary and one-third remedial," that is, fixed with higher wages and better treatment of workers.

The Mexican government was ambivalent about the WWI bracero program, which ended in 1921. The 1910-17 Mexican revolution damaged the haciendas on which many peasants lived and worked, leaving many Mexicans with neither land nor jobs and eager to migrate to the United States. However, the Mexican government was concerned about the treatment of its citizens in the United States, especially in Texas, where "No dogs or Mexicans" signs were common. Some braceros returned to Mexico with few savings or in debt because of charges they incurred at the farmer-owned stores and labor camps where they lived while in the US (Fuller 1940: 19853).

After the United States declared war on the Axis powers in December 1941, a federal interagency committee in May 1942 concluded that supplemental foreign farm workers would be needed for the fall harvest. Despite protests from US unions and Mexican American groups, the committee drafted a guest worker agreement and sent it to Mexico, which modified it slightly before approving it. The first of what would become a series of Mexico-US bracero agreements was signed on July 23, 1942, via an exchange of diplomatic notes.

Mexican braceros entered the United States at El Paso in September, 1942, but fewer than 5,000 were admitted that year, in part because the bracero agreement called for a minimum wage of \$0.30 an hour

at a time when US farm workers were not subject to the federal minimum wage. Some farmers refused to hire braceros because they feared that the minimum wage required for braceros could be extended to the US farm workers they employed (Congressional Research Service 1980: 22). East coast farmers recruited workers from the British West Indies under separate memorandums of understanding (MOUs) between the War Food Administration and the Bahamas (MOU signed March 16, 1943), Jamaica (April 2, 1943), and Barbados (May 24, 1944).

Some 310,000 foreign farm workers were admitted between 1942 and 1947, including 220,000 Mexicans (71 percent). Admissions peaked in 1944, when 84,340 foreign farm workers were admitted, 74 percent Mexicans and 19 percent Jamaicans. Foreign workers were employed in twenty-four states; half were in California, and they were about two percent of US farm workers during World War II.

Instead of expiring with peace, the bracero program expanded over the objections of the President's Commission on Migratory Labor (1951), which reviewed farm labor issues and recommended that no more braceros be admitted. The commission concluded that the presence of braceros depressed wages in the crops where they were concentrated, so that "alien labor has depressed farm wages and, therefore, has been detrimental to domestic labor" (p. 59). Growers opposed the commission's recommendation to end the bracero program, and the outbreak of the Korean War persuaded Congress to enact PL 78, the Migratory Labor Agreement of 1951.

PL 78 gave the DOL a central role in determining the need for foreign farm workers. Section 503 prohibited the admission of braceros unless "the Secretary of Labor has determined and certified that (1) sufficient domestic workers who are able, willing, and qualified are not available at the time and place needed to perform the work, (2) the employment of such workers will not adversely affect the wages and working conditions of domestic agricultural workers similarly employed, and (3) reasonable efforts have been made to attract domestic workers for such employment at wages comparable to those offered to foreign workers."

During consideration of PL 78, DOL tried and failed to persuade Congress to extend the same minimum wage protections afforded to braceros to US workers. Representative W. R. Poage (D-TX) asserted that the lack of a minimum wage for US farm workers was "one of the greatest safeguards that you can provide for American labor. If it, in fact, costs the employer more to bring in foreign labor," employers will prefer US workers (Congressional Research Service 1980: 35). Thus, there was a minimum wage for braceros in the 1950s, but not for US farm workers.

President John Kennedy announced plans to end the bracero program in 1961. Hearings in Congress featured testimony arguing that, without braceros, the production of many commodities would be reduced for lack of labor, prompting an extension of the program until 1964 to give farmers more time to adjust. The end of the Bracero program was followed by wage increases, labor-saving mechanization, and union activities.

The Congressional Research Service reviewed links between irregular Mexico-US migration and Bracero admissions. CRS concluded: "The Bracero program only seemed to reduce illegal migration when it was combined with both a massive law enforcement [Operation Wetback in 1954-55] and an expansion of the farm labor program to the point where it almost certainly had an adverse impact on the wages and working conditions of domestic workers." (1980: 58). In other words, CRS suggested there was a trade-off: a smaller bracero program and more illegal migration, or a larger bracero program and more depression of US farm wages.

4.4.2 H-2A Workers

The H-2 program was created by the Immigration and Nationality Act of 1952, which was enacted by Congress over President Truman's veto. Section 101(a)(15)(H) outlined procedures to admit three types of temporary workers: persons of distinguished merit and ability, other temporary workers, and trainees. The H-2 designation specifies that "other temporary workers" must have "a residence in a foreign country" that they have "no intention of abandoning" and be "coming temporarily to the US to perform other temporary services or labor, if unemployed persons capable of performing such services or labor cannot be found in this country."

Section 214(c) gave the attorney general the final authority to deal with petitions from employers for H-2 visas for foreign workers "after consultation with the appropriate agencies of the government." The attorney general normally denies employer petitions unless they are accompanied by a certification from the DOL that US workers are not available and that the presence of H-2 foreign workers will not adversely affect US workers.

Unlike the bracero program, which was begun to deal with wartime labor shortages, the H-2 program is a permanent part of US law. Technically it is not a program but a visa classification; unlike the bracero program, H-2 does not operate under agreements negotiated between governments. Instead, the H-2 program is unilateral; once the attorney general (now, the Department of Homeland Security) accepts their petitions for foreign workers, employers can recruit workers in a list of 60+ countries and in any manner allowed by that country's laws, so that they may recruit only men or only women.

After the bracero program ended, many farmers expected to employ Mexican workers under the H-2 program. However, the DOL on December 19, 1964, issued regulations requiring employers of H-2 workers to offer and pay any US workers they employed a super minimum wage, the "adverse effect wage rate" (AEWR), and to offer and provide US workers with housing and transportation. These regulations effectively extended the wage and benefit guarantees afforded to H-2 workers to US workers at a time when US farm workers were exempt from many labor laws (Congressional Research Service 1980: 65).

The December 19, 1964, regulations guided the administration of the H-2 program until they were modified by the Immigration Reform and Control Act of 1986 (IRCA). Most H-2 workers between the mid-1960s and the mid-1980s cut sugarcane in Florida and picked apples along the eastern seaboard. There was frequent litigation over program administration. For example, Elton Orchards challenged a DOL requirement that it must hire inexperienced US workers who applied to pick apples rather than experienced Jamaican H-2A workers, but lost when a court ruled in 1974 that there is no "legal right to use alien workers upon a showing of business justification" that the foreign workers are more productive.

IRCA separated H-2 into two programs in 1986: H-2A for agriculture and H-2B for nonfarm sectors. Both programs admit mostly low-skilled Mexican workers to fill seasonal jobs, usually defined as lasting less than 10 months. Most H-2A workers are employed in tobacco and most H-2B workers are employed in landscaping and gardening.

Employers seek certification to fill jobs with H-2A foreign workers by trying and failing to recruit US workers while offering the higher of the federal, state, or local minimum wage, the prevailing wage, or the AEWR, which is usually the highest of these three wages. Employers must prepare job orders that describe the job, including any piece rate wages, productivity requirements, and any transportation and other work-related amenities. Employers must offer H-2A and out-of-area US workers free housing that is approved by local agencies, and guarantee work or wages for three-fourths of the employer-specified period of need.

The H-2A program was expected to expand in the late 1980s and early 1990s because of the Immigration Reform and Control Act of 1986, which allowed unauthorized farm workers to become legal immigrants freer to seek nonfarm jobs and imposed sanctions on employers who knowingly hired unauthorized workers. Newly legalized farm workers left farm jobs, but employer sanctions failed to stop unauthorized migration, largely because workers could present false documents to employers and be hired. Instead of diminishing as expected, the unauthorized share of the farm labor force doubled from 25 to 50 percent between the mid-1980s and mid-1990s, and the H-2A program shrank to less than 30,000 at a time when there were about 2.5 million farm workers.

4.4.3 AgJOBS and 4 S's

Farm employers pointed to the high share of unauthorized workers and the relatively few H-2A workers beginning in the mid-1990s to argue for an alternative E-Z guest worker program for agriculture. They failed until 2000, when the election of Mexican President Fox and US President Bush was widely expected to lead to new guest worker programs. In anticipation, worker and employer advocates negotiated the Agricultural

Job Opportunities, Benefits and Security Act (AgJOBS) proposal, which would have legalized unauthorized farm workers and made employer-friendly changes in the H-2A program. The legalization would be earned in the sense that unauthorized workers employed at least 150 days in US agriculture in the previous two years could become probationary immigrants, and then earn a regular immigrant status by continuing to do US farm work for at least three years.

AgJOBS would also make three major employer-friendly changes to the H-2A program. First, employers would no longer have to actively try to recruit US workers under government supervision. Instead, they could post job openings on the internet and, if US workers did not apply, be certified to employ guest workers. Second, instead of providing housing, employers could offer a housing allowance to guest workers of \$1 to \$2 an hour, depending on the cost of renting an apartment. Third, the AEWR would be reduced by \$1 to \$2 an hour and studied to determine if it is the optimal wage floor.

Most US farm workers are unauthorized Mexican-born migrants, and most legal H-2A guest workers are Mexicans. Mexico-US migration slowed during the 2008-09 recession, and did not increase with the recovery. Indeed, more Mexicans moved from the US to Mexico, one million, than from Mexico to the US, some 870,000, between 2009 and 2014, so that the number of Mexican-born US residents fell by 140,000. There are several reasons for less Mexico-US migration, including tougher US border enforcement (230,000 Mexicans were apprehended just inside the US border in FY14), the slow recovery from the 2008-09 recession (especially in construction), and structural changes in Mexico, such as smaller families and an expanded social safety net in rural Mexico, the origins of most Mexican farm workers in the US.

Agriculture, the major port of entry for newly arrived rural Mexicans, has responded to the arrival of fewer newcomers in four major ways, the four S's:

- 1. satisfy current workers with wage and benefit increases so they continue to do farm work longer,
- 2. **stretch** current workers with productivity increasing conveyor belts and other devices that make workers more productive and allow the employment of older workers and women,
- 3. substitute machines for hand labor and
- **4. supplement** the labor force with H-2A workers.

The satisfy strategy is straightforward, centering on higher wages and improved supervision so that fewer workers seek nonfarm jobs. However, most US farmers do not believe that higher wages can entice more local workers to become farm workers; they say that raising wages will only shuffle workers from lower- to higher-wage farms.

The stretch strategy is to make current workers more productive by reducing lifting, carrying, and climbing trees. Forklifts in fields can move harvested produce, conveyor belts that move slowly in front of workers can reduce carrying bins and trays, and dwarf trees and mobile platforms and reduce the need for ladders.

The substitute strategy has a long history in agriculture, where machines have replaced workers in most industrial countries. Labor-saving mechanization is easiest if crops that ripen uniformly can be developed, so that the harvester needs to make only one pass through the field or orchard. Plant breeders have developed more uniformly ripening crops, so that fruits and vegetables that were once harvested three or four times are now harvested only once or twice, which makes hand workers more productive because yields are higher and facilitates mechanization. From robotic milking systems to strawberry harvesting machines, engineers say that sustained wages of \$15 an hour or more, twice the current federal minimum wage of \$7.25, would prompt a wave of labor-saving mechanization.

Mechanization may be slowed if the fourth S, supplementing current workers with H-2A guest workers, expands and keeps labor costs stable. The number of jobs certified to be filled with H-2A workers almost doubled from 77,000 in 2007 to 140,000 in 2015, as California and other major fruit and vegetable producers

began to supplement their current workforces with H-2A workers.⁴⁰ Some H-2A workers fill more than one job, but as more H-2A workers are in the US the maximum 10 months they can stay, the ratio of jobs to workers has declined, and is today about 1.3.

Table 4. H-2A Jobs Certified and Visas Issued 2006-15

H-2A Jobs Certified and Visas Issued, 2006-15					
	Jobs Certified	Visas Issued	Ratio		
2006	59,110	37,149	1.6		
2007	76,814	50,791	1.5		
2008	82,099	64,404	1.3		
2009	86,014	60,112	1.4		
2010	79,011	55,921	1.4		
2011	77,246	55,384	1.4		
2012	85,248	65,345	1.3		
2013	98,813	74,192	1.3		
2014	116,689	89,274	1.3		
2015	139,832				

Sources: www.foreignlaborcert.doleta.gov/performancedata.cfm, http://travel.state.gov/content/visas/en/law-and-policy/statistics/non-immigrant-visas.html

The H-2A program is expanding to mixed reviews. On the one hand, the US government requires farm employers to pay all recruitment and transport costs incurred by workers, making H-2A one of the few seasonal guest worker programs that aims to have workers arrive debt-free. H-2A workers are allowed to join unions, and the Farm Labor Organizing Committee (AFL-CIO) represents several thousand H-2A tobacco workers in North Carolina. On the other hand, there is no formal role for foreign governments in developing the terms of the H-2A program and enforcing contract terms, no formal role for employers and unions in program administration, and fears that farm employers are establishing productivity standards that only migrant guest workers can satisfy.

The productivity standards issue is important. Many farm workers are guaranteed a minimum wage but are paid under incentive systems that reflect how much work they accomplish, with the employer "making up" the earnings of less-productive workers so they earn at least the minimum wage. However, employers do not have to retain workers unable to perform enough work to earn the minimum wage, and they often fire less-productive workers, both foreign and local. Local workers are often less productive then guest workers because those willing go fill seasonal farm jobs are usually hoping for better nonfarm jobs, so that employers who set high productivity standards that only selected migrants from abroad can satisfy are effectively closing off their jobs to local workers.

⁴⁰ The number of unique H-2A workers admitted is less than the number of jobs certified, since some employers fail to recruit foreign workers and a few H-2A workers fill two US farm jobs. DOS issued 89,300 H-2A visas in FY14, up from 50,800 in FY07 and 31,500 in FY02.

5. Conclusions and Recommendations

Agriculture is an industry fundamental to life whose share of employment shrinks with economic development, as subsistence farmers who produce primarily for their families give way to fewer and larger farms that hire workers to help to produce crops and livestock to sell. Some of these fewer and larger farms, especially those that produce fruits and nuts, vegetables and melons, and horticultural specialties that range from flowers and plants to mushrooms, so-called FVH commodities, rely on hired workers to do almost all of the work in their labor-intensive operations. Labor costs of 30 to 40 percent of total costs to produce leafy green vegetables, tree fruits, and berries are far more than the 10 percent labor costs of production in many manufacturing industries.

The wages of hired farm workers tend to be low for two reasons. First, farm work is an easy-entry occupation, with most farmers hiring all those who show up to work, especially to perform the seasonal harvesting tasks that require the most workers. Second, farmers often sell the commodities they produce in competitive markets, and at some times during a season or year at prices that do not cover all of their production costs (farmers nonetheless harvest as long as market prices cover their variable costs). Farmers complain that they are "price takers" rather than "price makers," and that "market forces" prevent them from raising the lower-than-average wages they pay to farm workers.

The employment of international migrant workers is concentrated by size of farm, commodity, and area, so that large farms producing FVH commodities in areas with appropriate land, climate, and transport hire the most migrant farm workers. In a country such as the US, this means that 10,000 of over two million farms⁴¹ hire half of all farm workers, and less than 50,000 hire over 90 percent of all farm workers, 70 percent of whom were born outside the US. Hired farm worker employment is similarly concentrated on relatively few large FVH farms in Canada, Spain, and Australia and New Zealand. Despite this concentration of production and employment, there are nonetheless tens of thousands of smaller farm employers. Conditions for migrant farm workers on large and small farms vary widely, from being "part of the family" on some to being isolated second-class citizens on others.

There are few comparative studies of migrant labor in agriculture in high-income countries (Martin, 1984). There are many exposés of the poor conditions experienced by some migrants, and ongoing efforts to assist vulnerable and exploited workers, but few systematic analyses of the economics of fruit and vegetable production that explain why farmers turn to international migrants, the nature of the jobs on FVH farms, and the characteristics and conditions of workers filling them. An even bigger gap involves intermediaries between farmers and workers, the contractors, gangmasters, crew bosses and others who act as go-betweens between farmers and workers.

The analysis in this paper leads to the following conclusions:

1. International migrants provide critical labor and skills to labor-intensive agriculture in higher-income countries, filling seasonal jobs in FVH commodities that local workers shun as they find better non-farm alternatives. However, even for migrants from poorer countries, seasonal farm work is more of a job than a career, so that farm labor markets resemble revolving doors with workers entering in their 20s and leaving about a decade later. Turnover of 10 percent or more means that farm employers are constantly looking over borders to find replenishment workers.

⁴¹ In the US, a farm is defined as any place that normally sells at least \$1,000 worth of farm products a year. Over half of the 2.1 million US farms are hobby and retirement operations that lose money farming, but they are included in US data that generate average farm size, sales, employment and other items.

- 2. Many farmers assert that the policy choice is between local production and imports: either workers or food must be imported, that is, employers have no alternative to hiring migrants who are willing to work for lower-than-average-wages. Labor-saving mechanization is an alternative, but it usually leads to fewer and larger producers, while imports may conflict with national security and other goals and priorities. Employers in effect assert that they need a subsidy in the form of migrant labor to remain competitive in a globalizing economy.
- 3. International migrants who fill seasonal farm jobs in higher-income countries vary widely in education and skills, from teachers who pick fruit crops during summer vacations to subsistence farmers who work seasonally or year-round abroad. Most are young men, with notable exceptions in particular commodities and areas, as with female berry pickers in southern Spain.

Recommendations for the ILO, unions, employers, and governments include:

- ➤ Collect better data and assess programs that admit migrants to fill farm jobs. Data collection and assessment could begin with the procedures used by governments to determine whether migrants are needed, such as labor market tests to determine whether local workers are available, what recruitment and training procedures are available for both local and migrant workers, what are the most common wage systems and how do they interact with tax and social welfare systems,⁴² and are there opportunities to create job ladders that allow local and migrant workers to acquire and be rewarded for additional skills? If migrants simply enter and exit each season, and labor costs do not rise, there is little incentive to improve productivity and wages. Developing policies to raise productivity and wages over time is challenging but necessary to keep agriculture competitive in a globalizing world.
- Assess the impacts of remittances on the often rural areas from which migrants originate to determine the contribution of work abroad to development at home. Do the often subsistence farms of migrants wither while migrants are away, or do other family members keep the farm viable by switching from the harder work of crops to the easier care of livestock and rent out crop land? Do migrants use the skills they acquire abroad when they return, or are crops different in areas of origin and destination so that skills acquired abroad have little relevance in agriculture at home? If migrant farm workers are employed longer abroad, how does extended employment abroad affect earnings, remittances, and the transfer of skills? Do migrants employed six or eight months abroad mostly rest at home? If yes, how does such circular migration affect development?
- Compare the benefits and costs of bilateral labor arrangements (BLAs) versus unilateral programs to admit migrant farm workers. Most BLAs are effectively unilateral in the sense that destination countries prepare and send them to labor-origin countries that agree to their terms with few or no changes. If migrant-sending governments sign BLAs and participate in annual consultations on the operation of guest worker programs, do worker protections improve? Do sending-government representatives in destination countries (for which migrants often pay) result in them "taking the employer's side" in order to preserve job opportunities for sending-country migrants or respond to worker complaints and increase protections for migrant workers on site?
- Most farm employers guarantee work for the period of migrant contracts, as with Spanish contracts that guarantee 18 days of work a month or the US requirement that farmers guarantee work for at least three-fourths of the employer-specified period of work. Migrants who are abroad seasonally often want to work more hours. Should governments encourage the formation of employer cooperatives to maximize work opportunities for migrant workers, allowing workers to move from farm to farm as needed? Would labor cooperatives with professional managers help to improve worker training and orientation and enforce

Some countries allow local workers who fill agricultural jobs to receive social welfare benefits, including wage subsidies while doing farm work or easier access to unemployment benefits when seasonal jobs end. Some countries have programs similar to the US Earned Income Tax Credit, which allows parents of legal US children to receive up to have of their earnings in the form of a refundable tax credit, so that a worker with children who earns \$5,000 can receive a government check for \$2,500.

housing and labor standards and worker protections? Should workers be limited to 60 or 70 hours a week, even if they want to work more?

- > Study best practices to protect and empower migrants, including the effects of allowing employers and unions to participate in the design of migrant worker programs and to monitor the recruitment of workers abroad. Many employers advance money to migrants to cover transport and related costs, and then recoup some or all of these migration costs via wage deductions. Taxes for work-related programs such as pensions and unemployment are often deducted from migrant worker wages. Should guest workers receive refunds of these taxes paid, and would such refunds act as an incentive to return at the end of the contract and provide an opportunity to match foreign earnings to promote development at home?
- Many migrant worker programs have multiple goals, including filling vacant jobs and promoting economic development in migrant-sending areas. These development goals may justify subsidies from foreign aid budgets to select migrants, acquire skills abroad, and return at the end of their contracts, but they have not been evaluated rigorously. How successful are migrant farm worker programs to achieve these development goals? How many of the development effects of guest worker programs are inter-generational, in the sense that the children of guest workers benefit from the spending of remittances on education and health care?

International migrant workers are an average 16 percent of industrial country workers, with the range of less than five percent in Korea and Japan to over 20 percent in Australia and Switzerland. The share of international migrants among hired farm workers is higher, perhaps a third, and the range wider, from 10 percent in East Asia to over half in the US. Most international migrant farm workers are men, and many work in remote workplaces that "hide" them from many residents of host countries. However, the work of migrants is critical to sustaining agriculture, justifying concerted efforts to understand the characteristics and conditions of migrant workers in these sectors.

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