

Report on the Seasonal Agricultural Worker Program



**Inter-American Institute for Cooperation on Agriculture
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Literature Review

Introduction:

The Seasonal Agricultural Worker Program (SAWP) is critical to the success of the Agriculture sector in Ontario. Without this program, many farms would not be able to operate due to an inability to find local labour to sustain their operation. In fact, this year it is expected there will be over 25,000 workers on more than 2000 farms. Feedback from industry stakeholders, farm owners, and the seasonal workers has indicated that there are many misconceptions about the program presented in the media, and subsequently, the program is often misunderstood by the public.

In order to understand the importance of the SAWP within Canada, one must first understand the unique labour challenges that face the agri-food industry – a \$100 billion industry that contributes 8% to Canada's GDP and employs 2.1 million Canadians. These labour challenges include: seasonal work to support harvesting during peak time periods; a shortage of domestic labour; an inability to recruit and retain labour due in part to a declining rural workforce; uncompetitive wages; and demanding working conditions. (Workforce Action Plan).

Temporary foreign workers (TFWs) can be viewed from multiple perspectives. From the perspective of contingent workers, which can provide flexible labour from the employer's perspective, or from the remittance perspective, whereby programs can be seen as international aid to developing countries. While there exists a great deal of extant literature on both perspectives, there exists a gap on assessing the impact, both social and economic, of these programs on the national, community, industry, business owner and individual level. This report highlights those gaps and proposes research, with both qualitative and quantitative analysis to assess the impact at all levels.

HISTORY OF THE SAWP

The SAWP was initially founded in 1966 as a labour migration agreement between Canada and Jamaica, it then expanded to include other commonwealth Caribbean countries, and in 1974 it expanded again to include Mexico (Basok 2000, Binford 2002, Colby 1997). In the first 40 years of this program the number of workers has expanded from 264 Jamaicans in 1966 to almost 20,000 migrant workers from the Caribbean and Mexico in 2006, with an ever-increasing percentage coming from Mexico (Preibisch 2007). Within the literature, the lack of focus offered to Caribbean countries and the domestic development taking

place there as a result of their participation in SAWP is very pronounced. Though Mexico now makes up more than 50% of the SAWP participants coming to Canada every year, Mexican development is overly represented in the literature. This literature review begins with an overview of who the participants within SAWP are, what kind of environment that they come from and with what kind of opportunities and skills. Next is an overview of the remittances that are received by participant workers, this includes an understanding of what kind of money they are earning relative to the costs associated with quality of life in their countries of origin. The following three sections deal with how remittances are being spent by SAWP participants, initially covering non-productive expenditures such as food, clothes, and paying off debt. The next chapter deals with the investment and the importance that is placed on the education of the migrant workers' children. For many migrant workers, education is viewed as the only viable solution to the rural poverty that exists in the countries of origin of SAWP participants. The next section covers how remittances impact both agricultural and non-agricultural productive investments. The structural constraints that impact how families determine their optimal livelihood strategy are addressed in this section. The final section presents all of the published information that exists regarding the skills that farmers are learning during their time in Canada and how

those are/might be applied within the context of the countries of origin of SAWP participants.

Participants of the SAWP:

The individuals who participate in the SAWP program are “mostly married males between the ages of 22 to 45 (women between 23 and 40) with dependents, landless or land poor and with substantial agricultural work experience” (Binford 2007). Many of the migrant workers from Mexico come to Canada because they cannot afford the rising costs of traveling illegally to the United States and therefore view Canada as an economical alternative (Basok 2002). While the Mexican agricultural migrant workers who travel to the US are predominantly from western and northern Mexico, the SAWP participants typically come from central states such as Tlaxcala, Guanajuato, Puebla, Hidalgo and Morelos (Verduzco, 2007). This difference in migration pattern is due to the cost, time and money that it takes to travel to Mexico City where all potential SAWP participants must go in order to process their application (Basok 2000). Mexico has been looking to expand the scope of their recruitment offices, but since many workers return year over year upon request from Canadian farmers, regional restrictions persist. Since joining the SAWP program in 1974, Mexican migrant

labourers have been gaining a larger portion of the market share of positions within SAWP (Preibisch & Binford 2007, Weston & Scarpa de Masellis 2003).

CONTINGENT WORKER PERSPECTIVE

TFWs can be considered as contingent workers. There continues to be an increase in the use of contingent workers (Connelly & Gallagher, 2006; Connelly & Gallagher, 2004; Drucker, 2002; Kalleberg, Reynolds, & Marsden, 2003; Rogers, 2000; Zeytinoglu, 1999). Many employers seek flexibility through the use of contingent or temporary employment to achieve improved competitiveness and success (Zeytinoglu, Chowhan, Cooke & Mann, forthcoming). With the increased globalization of goods and service production and increasing competition, many organizations are attempting to maximize returns, in part by lowering labour costs and moving from employing workers on a largely full-time continuous basis to a more contingent and temporary basis (Zeytinoglu et al, forthcoming; Blyton, Heery, & Turnbull, 2011; Cappelli, Bassi, Katz, Knoke, Osterman, & Useem, 1997; Torres, 2012). As pointed out by Zeytinoglu et al. (forthcoming), many employers have responded to the increasing global labour market by making strategic human resource management choices and by hiring contingent and temporary workers to achieve reduced labour costs (Blyton et al., 2011; Cappelli et al., 1997; Standing, 1997; Zeytinoglu & Muteshi, 2000).

Many employers make strategic labour choices, including reducing labour costs and using contingent or temporary workers (Caroli, Gautié, Lloyd, Lamanthe, James, 2010; Green, Kler, & Leeves, 2010; Shire, Schönauer, Valverde, & Mottweiler, 2009), for cost reduction and organizational flexibility (Boxall & Purcell, 2011). As defined by Connelly and Gallagher, 2006, “contingent work” or “contingent employment,” includes workers who do not have explicit or implicit contracts for long-term employment and situations in which the minimum hours can vary in a non-systematic manner (Polivka & Nardone, 1989). While many studies have examined specific behaviours of contingent workers, for example de Gilder (2003) examined their commitment and trust, and Wilkin, 2013 conducted a meta-analysis examining their job satisfaction, few studies have examined the impact of using contingent workers. TFWs can be considered to be a form of contingent work. Thus, understanding the social and economic impact of TFWs on an industry, business owners, the workers themselves and their families’ needs to be addressed.

As stated previously, while previous studies have examined the use of TFWs as an operational strategy to employ contingent workers for flexibility purposes and also for perceptions of international aid (remittance), to our knowledge, while some studies have examined the impact of contingent and temporary

workers or organizational success (e.g. Auger & Teece, 2008; Boxall & Purcell, 2011), there is a lack of research that examines the impact of these types of programs on multiple levels. Zeytinoglu et al. (forthcoming) did examine the impact of the use of temporary workers on workplace profitability and found that using a strategy of part-time or temporary workers leads to decreased profitability and productivity. However, this study did not take into account that in some industries, such as the Agri-Food Sector, the labour market is extremely tight and finding suitable local labour is not an option.

The extant literature includes a large number of studies on the relationship between HRM practices and performance (e.g. Jiang, Lepak, Hu, Baer, 2012), but there is a gap in the literature, and the question of how labour practices affect workplace performance remains unanswered (Zeytinoglu et al., forthcoming, Guest, 2011). Future research is needed on the economic benefit of the SAWP to the farm owners. This research could contribute to the literature on contingent workers, specifically addressing how the use of contingent workers affects the financial performance of the farm/organization.

REMITTANCE PERSPECTIVE

For migrant workers that participate in SAWP, the remittances and the increasing financial stability that they represent are the primary reason for travelling to Canada (Carvajal, 2008, Carvajal & Johnson, 2016; Binford, 2002). SAWP has been growing at its inception, and with the increase in the number of participants there is an increase in the amount of remittances being sent back to Mexico and the Caribbean. In 2004 the remittances coming from Mexican migrants in SAWP totalled CDN\$67,486,769 on average SAWP participants were making CDN\$9,338 per trip to Canada, and they remit 80% of their income (Carvajal, 2008; Carvajal & Johnson, 2016). By 2012 Mexican migrants in the SAWP program were sending CDN174.1 million in remittances back home, on average the CDN\$9,879.32 was being sent home per worker, which represented 76.8% of the income in Canada (Wells *et al.* 2014). The cost of transferring money back to their communities of origin is estimated at CDN\$23.25 per transfer, or CDN\$198 per season in Canada (Verduzco, 2007).

Based on 257 surveys completed in 2006 of Mexican migrant SAWP labourers in southern Ontario, the following table summarises how households in Mexico allocated their remittances.

Use	Percentage
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General consumption	28.3
Housing improvements	14.6
School fees	12.4
Transport	10
Farm investment	9.8
Appliances/electronics	6.1
Payment of old debts	5.4
Investments in non-farm business	5.4
Social events, parties	5.1
Medicines	2.3

Note. Data copied from. "The impact of remittances from Canada's seasonal workers programme on Mexican farms" by Carvajal Gutiérrez, L., & Johnson, T. (2016) *International Labour Review*, 155(2), 297-314.

This table provides a general understanding of how migrant labourers spend their money, however it must be noted that of the 257 labourers surveyed only 167 operated a farm in Mexico. Of those operating a farm in Mexico 163 of them invest in their farming activities, and if the analysis of remittance allocation is narrowed down to the 167 that operate a farm the percentage invested in farms goes from 9.8% to 14% (Carvajal, 2008; Carvajal & Johnson, 2016). From this data, only 15.2% of the remittances from Canada are being used towards productive investments, 27.6% if school fees are included as they would represent a long-term investment in the human capital of the farmers' children.

Another study conducted in 2012 used a qualitative approach to understand the impact of remittances on the communities of origin of migrant labourers. In the state of Guanajuato, 60 semi structured interviews were carried

out with SAWP workers and their family members, the following is a summary of the responses gained when asked how remittances were used.

Theme	Number of Respondents (N=60)	Number of References
Housing	46 (77%)	87
Education	35 (58%)	75
Food	32 (53%)	66
Health Care	27 (45%)	46
Clothing	23 (38%)	32
Debt Payments	19 (32%)	28
Savings	20 (33%)	24
Land and Livestock	18 (30%)	24
Misc./Other	41 (68%)	80

*This residual category consists of a disparate range of purchases such as computers, blenders, telephones, fumigation, tractors, trucks, furniture, house repairs, fertilizer, washing machines, etc.

Note. Data copied from "Sustaining Precarious Transnational Families: The Significance of Remittances from Canada's Seasonal Agricultural Workers Program" by Wells, D., McLaughlin, J., Lyn, A., & Mendiburo, A. D. (2014). *Just Labour*, 22.

These results add validity to the results of Table 1, farmers are putting a lot of emphasis on investing their remittances so that they can sustain their livelihoods without requiring money earned as migrant labourers. These results indicate that the structural constraints leading to the poverty that forces labourers to migrate in the first place cannot be overcome through individuals migrating to places that pay above the domestic labour market.

Remittance expenditure is not uniform over time, there exists a hierarchy of needs amongst migrant workers that depends on how long they have been participating in migrant labour. For migrant workers to start using their

remittances towards productive investments they first need to move beyond the conditions of extreme financial insecurity, which are more common in the first few years of participation in SAWP. Migrant workers use their remittances towards the repayment of debts (many labourers incur these debts through the application process of SAWP), pressing repairs needed for their homes and household consumption needs (Binford, 2002; Wells et al., 2014; Verduzco & Lozano, 2003).

Non-productive investments:

Due to the high level of economic insecurity experienced by participants of the SAWP program many workers use their remittances to towards immediate needs related to consumption. Therefore, the investments made on their houses represents a reliable indicator of migrant workers' ability to save money (Verduzco & Lozano, 2003). Spending patterns change amongst migrant workers based on how many trips they have taken to Canada, in order to analyze this data Verduzco & Lozano 2003 break the respondents into 3 separate groups.

Classification of workers interviewed by number of trips to work in Canada	Number of workers	%
Group A. From 1 to 4 trips	165	46.

		1
Group B. From 5 to 8 trips	85	22.6
Group C. 9 or more trips	112	31.3
Total no. of workers	358	100

Note. Table copied from "A Study of the Program for Temporary Mexican Workers in Canadian Agriculture" by Gustavo Verduzco and Maria Isabel Lozano. (2003). North-South Institute Ottawa.

The data in this study clearly show that the longer migrants are in the program the more money they are able to accumulate to put into large investments such as their houses. There is a uniform positive correlation between trips taken to Canada and the ability to own a house.

Form of ownership of the home	Group A	Group B	Group C	Total
Own home	74	54	104	232
% in the category	47.4%	70.1%	94.5%	67.6%
Rented or loaned	32	13	3	48
% in the category	20.5%	16.8%	2.7%	14%
Live with parents or in-laws	50	10	3	63
% in the category	33%	13%	2.7%	16.9%
Total	156	77	110	343
	45.5%	22.4%	32.1%	100.0%

Note. Table copied from "A Study of the Program for Temporary Mexican Workers in Canadian Agriculture" by Gustavo Verduzco and Maria Isabel Lozano. (2003). North-South Institute Ottawa.

Not only do migrant workers buy plots and build their own houses, but if they already had a house when they started the program then they are able to expand upon the house that they previously owned

As noted in the table above workers in the program also expand the houses that they live in showing that not only are they able to make investments with the money earned in Canada, but also that they can continue to expand upon their investment the longer they stay in the program.

Purchases	Group A	Group B	Group C	Total
Automobile	3	4	10	17
% on an automobile	17.6%	23.5%	58.8%	100%
% in category	1.8%	4.7%	8.9%	4.7%
Van or truck	5	8	17	30
% on van or truck	16.7%	26.7%	56.7%	100%
% in category	3%	9.4%	15.2%	8.4%

Note. Table copied from "A Study of the Program for Temporary Mexican Workers in Canadian Agriculture" by Gustavo Verduzco and Maria Isabel Lozano. (2003). North-South Institute Ottawa.

There is no consensus among the studies that have analyzed the percentages of SAWP participants that own their own houses however they all conclude that remittances earned in Canada have a large positive impact on their ability to invest (Carvajal, 2008; Carvajal & Johnson, 2016; Verduzco & Lozano,

2003; Wells et al 2014). Lack of an education plays a significant role in rural farmers being able to save money so that large investments can be made. The inconsistencies that exist regarding economic wellbeing must also be considered, for many SAWP participants they have never been able to rely on making a certain income. Therefore, when they migrate to Canada and realize how much money can be made from one year to the next, this allows them to begin planning their savings to invest for the first time (Carvajal, 2008).

Children's Education:

Having the necessary income to send children to school is one of the primary reasons that migrant workers participating in SAWP choose to migrate. "Investment in education occupies third place, accounting for an average of C\$826 per year" (Carvajal, 2008: 136). There is a consensus within the literature, labourers migrate to provide a better life for their families, and a large part of that is to enable to pursue educational endeavours. As with investments in housing, there is a positive correlation between years participating in SAWP and the average years of schooling for the children of SAWP migrants (Verduzco & Lozano, 2004). Even when compared to farm investments, a larger portion of remittances (12.4% spent on children's education compared to 9.8% of remittances) are spent on the costs of children going to school (Carvajal & Johnson, 2016). Rural

communities within Mexico have free elementary schools, there are still costs associated with attending schools that can strain the household budget of rural farmers. The absence of junior and senior high schools is not uncommon in rural Mexican communities, therefore the costs of education increase as children get older and are forced to travel to their school (Verduzco & Lozano, 2003). Though wages earned in Canada are lower than in the United States, the cost of entering SAWP is lower than entering the US to work whether legally or illegally. The remittances are much higher from workers in Canada compared with migrant workers who travel to the United States, primarily due to the consistency of work and the housing that is provided as part of the migrant workers' contract. Due to these differences, workers in the SAWP program are able to accumulate more savings in a short amount of time. This enables them to have the financial resources to allow their children to continue in school when the children in the household are preparing to start high school (Colby, 1997).

Within Mexico it is especially crucial that children within poor rural areas be given every advantage possible by their families as the quality of education that they will have access to is poor (Binford, 2006). "Consequently, SAWP workers' children face growing barriers to escaping their parents' poverty. Public schools in rural Mexico are overcrowded and the education they provide is often

inadequate. This makes it very hard for children to pass exams to enter university. Few of those who do manage to enter university finish their degrees” (Wells et al, 2014: 156).

Productive Investment:

As previously stated, the migrant workers who are admitted into the SAWP program choose to migrate due to their extreme levels of economic insecurity that they are experiencing within their countries of origin (Binford, 2003; Wells et al, 2014; Carvajal, 2008; Carvajal & Johnson, 2016, Verduzco & Lozano, 2003).

Though the 2006 survey work by Lidia Carvajal could not find statistically significant changes in the investment patterns over time of Mexican migrant workers in the SAWP program (Carvajal 2008; Carvajal & Johnson, 2016). There is an agreement amongst other research studies that have looked into how remittances are used in the country of origin. The consensus amongst researchers is that the longer migrants participate in the SAWP program, the more likely they will become to have sufficient savings to be put towards productive investment (Binford 2007, Verduzco & Lozano, 2003; Basok , 2003; Rocha Mier, 2004; Wells et al, 2014).

Migrant workers are not able to invest large portions of remittances, the investments that are made do not typically lead to incomes that enable farmers to cease their migratory patterns. Looking at farmers surveyed within Canada, it is not always possible to gather reliable data regarding how remittances are spent, therefore organizing their responses into “A lot” “Some” “A little” and “None” offers insight into their productive investment patterns.

Expenditure	Number of Trips	Reported Amount of Expenditure (% of Respondents)			
		A lot	Some	A little	None
Purchase of Animals	≤ 5	1.2	1.2	0.0	97.8
	≥ 6	9.8	2.0	7.8	80.4
Land Purchase	≤ 5	6.2	1.2	1.2	91.2
	≥ 6	7.8	7.8	3.9	80.4
Business Investment	≤ 5	3.7	3.7	2.5	90.0
	≥ 6	7.8	5.9	3.9	82.3
Purchase of Vehicle	≤ 5	2.5	0.0	0.0	97.5
	≥ 6	7.8	5.6	0.0	86.3

Note. Table based on data in “The Seasonal Agricultural Workers Program and Mexican Development” by Leigh Binford (2007)

The table above shows that there is a measurable change in the allocation of remittances made by migrant workers in the SAWP program towards productive investment. “Indeed, between 12 and 16 percent of migrants with six or more trips to Canada responded that they had invested ‘a lot’ or ‘some’ of their remittances in some productive way, compared to 3 to 8 percent of those with five or fewer trips.” (Binford 2007: 6).

Of the 257 surveys collected of SAWP workers collected in Carvajal (2008), 167 owned land in Mexico. All 167 of the migrant workers who owned land had made investments in their land using money earned while in Canada. “All farmers (167) used their remittances (or Canadian income) to invest in Mexico. During the last five years, respondents who were farmers had invested an average of C\$10,102. Out of these 167 farmers, 103 (61.7 percent) invested between C\$1,000 and C\$10,000, and 36 (21.6 percent) invested between C\$10,000 and C\$20,000” (Cavajal 2008: 148). This is significantly higher than Basok (2001) in which of the 255 SAWP participants interviewed only 23.5% had made productive investments of any kind (either in agriculture or nonagricultural investments).

The following two tables of data are based on the Verduzco & Gustavo (2003) study, in which there were 358 survey participants and yet the levels of productive investment were very low.

Agricultural investment

Farm investment	Number of workers
To buy land	5
To buy chemicals	3
To buy machinery or equipment	2

To improve land	2
Another kind of investment: To buy animals, seeds, to pay farm workers or to rent tractor	5

Investment in non-agricultural production

	Number of workers
Own commercial business	12
Workshop for production or similar	5
Service workshop or similar	0

Note. These tables are copied from "A Study of the Program for Temporary Mexican Workers in Canadian Agriculture" by Gustavo Verduzco and Maria Isabel Lozano. (2003). North-South Institute Ottawa.

These findings are consistent with other studies (Binford 2013, Henneby 2006, Wells et al. 2014) in that there was not much evidence to suggest that migrant workers in the SAWP program were making productive investments.

In order to understand what factors influence how remittances are spent and invested, Basok (2003) grouped the survey respondents into three groups based on valuations conducted of the communities that participants lived in. The ranking received by communities were determined on the basis of infrastructure (paved road, telephone lines), distance to commercial centres and the presence of commercialization (number of stores). From this, the recipients could be

placed into Worst Endowed (86 respondents), Better Endowed (103 respondents) and Best Endowed (122 respondents). Using this methodology, the surveys were analyzed to identify patterns in the investment patterns of respondents based on their environment.

Investment Patterns (%)	Worst Endowed (n=86)	Better Endowed (n=103)	Best Endowed (n=122)	All (n=311)
Agricultural Land	23	15	9	15
Business	2	15	18	13
Children's Educations	62	61	58	60

Note. Table adapted from data in "Mexican Seasonal Migration to Canada and Development: a community-based comparison." Basok, Tanya. (2003).

This data, provides consistent and complimentary evidence to the New Economics of Labor Migration (NELM) Theory. NELM asserts that higher income communities will yield higher rates of productive investment. Though this is true of business investments, the agricultural land is more often purchased by SAWP members living in the worst endowed communities (Basok, 2003).

The proposed reason for the increased investment in the worst endowed communities is that the price of the land in poorly endowed communities is more attainable with the purchasing power of those working in Canada (Basok, 2003).

The cheaper agricultural land typically does not have irrigation, without

consistent watering investing to grow cash crops for the markets becomes a risky investment. “Small marginal land hardly permitted those who bought it to grow market commodities. Nor has such an investment allowed those who made it to hire additional workers. Instead, investments in such land permitted migrant workers and their households to improve diets by supplementing the purchased food with food (usually maize) produced by household members. Yet, even such small investments in agricultural land may have produced some spin-off effects since agricultural production requires the purchase of seeds, fertilizers, pumps, and other inputs” (Basok, 2003: 19).

Technology and Knowledge Transfer:

The technology that exists within as a result of SAWP is not well-documented. There have been some research projects constructed to document and explain socio-economic implications of SAWP participants’ countries of origin, yet projects that specifically focus on technology transfer are yet to be conducted. The information that exists regarding what skills are being learned by migrant farmers in Canada are a result of data collected in studies that had other central focusses. One of the expected results of SAWP is that migrant farmers will travel to Canada, while working within Canadian farms the expectation exists that they will learn new skills that will enable farmers to improve their quality of living

within their country of origin (Verma 2003). “According to the Mexican consulate in Toronto, one of Mexico’s reasons for participating in the Canadian contract program is to give Mexicans a chance to transport technology and culture from Canada back to Mexico” (Colby 1997, 28).

One of the best documented examples of knowledge transfer having a tangible impact on agricultural innovation, Colby 1997, documents how SAWP participants living in rural Oaxaca built some small-scale irrigation in their community. Once they had irrigation for their fields they were able to expand beyond tradition agricultural crops of the region. “Other agricultural changes brought back from Canada include the planting of new crops or us of new agricultural techniques. Those who had worked in Canada had enough disposable income to try uncommon or non-local, non-traditional crops such as cabbage, cucumbers and strawberries, or to plant and prune fruit trees, or to purchase and utilize more appropriate fertilizers” (Colby 1997, 29).

The community living within Tlaxcala, though a great success story, is not representative of migrant labourers involved in the SAWP program. Despite this success story Colby 1997, does elaborate the difficulties facing migrant farmers migrating between Canada and Mexico. Even though SAWP participants will be exposed to new forms of agriculture and learning opportunities, this exposure

does not guarantee that what is learned is applicable when workers are back in their country of origin (Colby 1997, Binford 2002, Binford 2013). Based on near 200 interviews that took place 2001-2002 Binford 2002 found that SAWP participants gained new knowledge relating to methods of production, machinery and cultigens.

“Yet conditions in northwest Tlaxcala (and in Tlaxcala generally) are such that it is unlikely that contract workers will be able to apply any new knowledge or technologies learned or acquired from their sojourns in the North Country. Eighty-four people said that they had learned something new about work in Canada, but only nine claimed that they had been able to apply that knowledge in Mexico because conditions there (dry land grain farming on eroded hillsides) were so different from those in Canada (mechanized farming on flat, well-watered soils and extensive investment in fertilizers and insecticides)” (Binford 2002).

In order to remain competitive, farmers within Canada require workers with experience and specific knowledge, and although all workers within the program are categorized as “unskilled”, farmers frequently request that the same workers return year over year. Employing the same workers year after year allows farmers to recruit workers with some experience working with the produce on their farm. Due to the competition of participant countries competing to send as many migrant workers from their country as possible they do their best to accommodate the needs of Canadian farmers (Preibisch 2007, Verduzco 2007). “Administrators in Canada and the labor supply countries claimed in interviews

that employers are increasingly requesting workers with specific characteristics, including international driver's licenses, English language skills, and commodity-specific expertise. Mexico, for example, has recruited workers with experience in strawberry harvesting and beekeeping to fulfill these same jobs in Canada" (Preibisch 2007, 440-441). By countries making a conscious effort to pair migrant workers with jobs in Canada that are best suited to them, there is a higher probability of migrants transferring knowledge and skills back to their country of origin. However SAWP for the most part will continue to facilitate the need in Canada of low-skill labour intensive positions (Verduzco 2007).

Based on a study conducted in 2006 by Lidia Carvajal, 257 surveys were collected in southern Ontario to learn how participation within the SAWP program were investing in their farms in Mexico. Part of this study documented the skills that SAWP participants were learning in Canada.

Table 7.19 Farm skills learned in Canada, 2006

Skill Learned	Number
How to better grow and select fruit, flowers and vegetables	78
Use of machinery (tractor, cutter)	63
How to grow and select tobacco	19
Greenhouse techniques	19
Better use of fertilizer and chemical products	11
Nursery techniques	7
Packing industry skills	2
Others	16
TOTAL	215 *

*This total (215) is greater than the number of respondents (202) who declared they have learned some skills because some of the respondents stated they have learned more than one skill.

(Table cited from Carvajal 2008, 147)

The above table is useful to gain an understanding of the types of skills migrant farmers are learning in Canada. However even though 78% of the survey respondents confirmed learning new agricultural skills while in Canada, only 30% of the migrant farmers were able to find a use in Mexico for the skills they learned in Canada (Carvajal 2008). The technology transfer that is occurring through the SAWP program does not have enough application in the countries of origin. There needs to be more of a concentrated effort to support the skills being acquired by migrant labourers so that they might have greater opportunities to apply what they have been able to learn in Canada (Russell 2003).

References

Basok, Tanya. (2000). Migration of Mexican Seasonal Farm Workers to Canada and Development: Obstacles to Productive Investment. (Statistical Data Included). *International Migration Review*, 34(1), 79.

Basok, T. (2002). *Tortillas and tomatoes: Transmigrant Mexican harvesters in Canada* McGill-Queen's University Press.

Basok, T. (2003). Mexican Seasonal Migration to Canada and Development: A Community-based Comparison. *International Migration*, 41(2), 3-26.

Binford, L. (2002). Social and economic contradictions of rural migrant contract labor between Tlaxcala, Mexico and Canada. *Culture & Agriculture*, 24(2), 1-19.

Binford, L. (2003). Migrant remittances and (under)development in Mexico. *Critique of Anthropology*, 23(3), 305-336.

doi:<http://dx.doi.org/10.1177/0308275X030233004>

Binford, L. (2006). Canadian Foundation for the Americas, & Gibson Library Connections, Inc. *The Seasonal Agricultural Workers Program and Mexican development* (Policy paper (Canadian Foundation for the Americas); FPP-06-07). Ottawa, Ont.: FOCAL.

Binford, L. (2013). *Tomorrow we're all going to the harvest: Temporary foreign worker programs and neoliberal political economy* (1st ed., Joe R. and Teresa Lozano Long series in Latin American and Latino art and culture). Austin: University of Texas Press.

Carvajal, L. (2008). *Farm-level Impacts in Mexico of the Participation in Canada's Seasonal Agricultural Workers Program (CSAWP)*. University of Guelph.

Carvajal Gutierrez, L., & Johnson, T. G. (2016). The impact of remittances from Canada's seasonal workers programme on Mexican farms. *International Labour Review*, 155(2), 297-314.

Cecil, R. G., & Ebanks, G. E. (1992). The Caribbean migrant farm worker programme in Ontario: Seasonal expansion of West Indian economic spaces. *International Migration/Migrations Internationales/Migraciones Internationales*, 30(1), 19-37.

Colby, Catherine. (1997). *From Oaxaca to Ontario: Mexican Contract Labor in Canada and the Impact at Home*. Davis, CA: California Institute of Rural Studies.

Downes, A., & Odle-Worrell, C. (2003). Canadian Migrant Agricultural Workers' Program Research Project-The Caribbean Component. *Report prepared for the North-South Institute*.

Hennebry, J. 2006. "Globalization and the Mexican-Canadian Seasonal Agricultural Worker Program: Power, Racialization and Transnationalism in Temporary Migration." PhD dissertation, University of Western Ontario

Preibisch, K. L. (2007). Local produce, foreign labor: Labor mobility programs and global trade competitiveness in Canada. *Rural sociology*, 72(3), 418-449.

Preibisch, K., & Binford, L. (2007). Interrogating racialized global labour supply: an exploration of the racial/national replacement of foreign agricultural workers in Canada. *The Canadian Review of Sociology*, 44(1), 5.

Rocha Mier, A. L. (2005). *So, what can we do? We are coming here to work. Human security and the agricultural worker program* (Order No. MR01852). Available from ABI/INFORM Global; Dissertations & Theses @ University of Guelph; ProQuest Dissertations & Theses A&I. (305000410).

Russell, R. (2003). Jamaican Workers' Participation in CSAWP and Development-Consequences in the Workers' Rural Home Communities. *Canada's Seasonal Agricultural Workers' Program (CSAWP) as a Model Best Practices in the Employment of Caribbean and Mexican Farm Workers. Ottawa: North-South Institute, 82.*

Verma, V. (2003). *The Mexican and Caribbean Seasonal Agricultural Workers Program: Regulatory and policy framework, farm industry level employment practices, and the future of the program under unionization*. North-South Institute.

Verduzco, G. (2007). *The Impact of Canadian Labour Experience on the Households of Mexicans: A Seminal View on Best Practices*. Canadian Foundation for the Americas.

Verduzco, G., & Lozano, M. I. (2003). *A Study of the Program for Temporary Mexican Workers in Canadian Agriculture*. The North-South Institute Ottawa.

Wells, D., McLaughlin, J., Lyn, A., & Mendiburo, A. D. (2014). Sustaining Precarious Transnational Families: The Significance of Remittances from Canada's Seasonal Agricultural Workers Program. *Just Labour*, 22.

Weston, A. and Scarpa de Masellis, L. (2003), *L. Hemispheric Integration and Trade Relations: Implications for Canada's Seasonal Agricultural Workers Program*, the North-South Institute, Ottawa.

Summary of research findings

<i>Time of data collection</i>	<i>Research methodology</i>	<i>Publications</i>	<i>Findings</i>
1987-88	297 interviews (surveys?) + 25 in-depth interviews all done in southwestern Ontario, of West Indian workers	Cecil, R. G., and G. E. Ebanks. "The Caribbean Migrant Farm Worker Programme in Ontario: Seasonal Expansion of West Indian Economic Spaces." <i>International Migration/Migrations Internationales/Migraciones Internationales</i> 30.1 (1992): 19-37.	Unable to make a connection between remittances and agricultural development, allocation of remittances is primarily consumption, but some is left over for building/repairing house, savings or investment. Not many respondents emphasize children's education as an important investment priority.
Not indicated in publication (year of publication 1997)	61 household interviews in a small Mixtec speaking village in rural Oaxaca, southern Mexico	Colby, C. (1997). <i>From Oaxaca to Ontario: Mexican contract labor in Canada and the impact at home.</i> Davis, CA: California	Colby identifies that money earned in the beginning goes towards immediate costs of household maintenance but savings do accumulate over time through participation in SAWP. Identification of a change in the agricultural system due to exposure to new knowledge and

		Institute of Rural Studies.	technology in Canada. Though it is noted that the transfer of knowledge/tech is difficult due to the different terrain and climate etc. Also discussed is the education of children being a reason for SAWP participation, beneficial for children of SAWP workers.
1996-1997 (Leamington) 1997-1998 (San Cristobal)	154 Mexican SAWP workers interviewed in Leamington, 100 Mexican SAWP workers in San Cristobal	Basok, T. (2000). Migration of Mexican seasonal farm workers to Canada and development: Obstacles to productive investment. International Migration Review, 38(2).	Farmers are able to make their lives incrementally better the longer they work in the program. If workers stay in the program long term they are able to buy land, equipment and businesses. However it is not common that migradollars are used for productive agricultural investments, author links the debt crises as having a persistent negative impact on the poor peasant agricultural class being able to productively invest. Those who often productively invest are from a more urban environment and have some non ag skills.
1999-2000	311 program participants interviewed in the provinces of Tlaxcala and Guanajuato	Basok, Tanya. "Mexican Seasonal Migration to Canada and Development: A Community-	This article looks at factors influencing how SAWP workers invest their remittances and finds that in the best endowed communities land is so expensive that SAWP workers can't afford it based on their remittances, in

		Based Comparison." <i>International Migration</i> 41.2 (2003): 3-26.	fact workers from poorer communities will more often buy land (even though it is more likely without irrigation it is affordable). The land purchased lacking irrigation means that it is not suited for commercial farming. Instead it is used to supplement the meals cooked in the house and improve the diets of the occupants while alleviated the costs of buying food. Also addresses that as houses are built and repaired with migra dollars there is a money multiplier effect, but it is limited. The trend is still farmers elevated their quality of life and supplementing it with continued migration to Canada.
2001	150 of the Jamaican migrant workers and their households after completing a 2001 work cycle in Canada	Russell, Roy. "Jamaican Workers' Participation in CSAWP and Development Consequences in the Workers' Rural Home Communities." (2003)	The education and healthcare of migrant workers' children receives the highest portion of the remittances earned in Canada. This is followed by housing and then income earning activities. All migrant workers are exposed to agricultural use and machinery (12% used either ag. Chemicals or machinery), yet only 23% received informal on the job training. 14% (700) migrant workers claim to have acquired substantive skills and

			knowledge in crop planting, spraying, fertilizing, harvesting and packaging that are directly applicable in Jamaica. 5% of remittances used in productive investment. Only 12% use skills acquired in Canada to farm with in Jamaica.
2001-2002	187 interviews, in selected communities of northwest Tlaxcala	<p>Binford, Leigh. "Social and Economic Contradictions of Rural Migrant Contract Labor Between Tlaxcala, Mexico and Canada." Culture and Agriculture Vol 24, No 2. (2002)</p> <p>Binford, Leigh. "The seasonal agricultural workers program and Mexican development." FOCAL (2007)</p>	<p>Remittances have been having a limited economic development within the region of study. Positive correlation between benefit to migrant workers and the number of trips that are taken. Due to criteria of the program that participants must be very poor, the productive investments are secondary to the family of migrants meeting their immediate needs. Elevated lifestyles rely on continued migration. Productive investments can complement the continued migration to Canada, incidents of migration being replaced by productive investment is rare.</p>
2002	Sample of 807, two questionnaires to workers and	Downes, Anderw & Odle-Worrell, Cyclicilene.	Remittances were primarily used to pay off debts, build/ repair houses and children's education. Evidence of farmers being able to

	<p>their families, 91% response rate from workers, 86% response rate from migrant worker households. Countries in the sample: Barbados, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago</p>	<p>“Barbados, Trinidad and Tobago, OECS Workers’ CASWP Participation and Development Consequences in their Rural Home Communities.” (2003).</p>	<p>use their remittances productively when they had access good roads, water and land. Access to credit was a major inhibitor of productive investment in many of the islands. Reported skills acquired include driving/operating farm equipment, as well as how to prime/repair these machines. Source of remittances is attributed to the elevated quality of living by migrants and their families. An identified need to increase the amount of emphasis that is placed on the capacity development for migrant labourers while they are working in Canada.</p>
2003	<p>358 surveys applied in communities in the Mexican states of: Mexico, Morelos and Tlaxcala</p>	<p>Verduzco, Gustavo & Maria Isabel Lozano. “A Study of the Program for Temporary Mexican Workers in Canadian Agriculture.” (2003)</p> <p>Verduzco, Gustavo. “The Impact of Canadian Labour</p>	<p>There is a correlation between more years spent in SAWP and a higher probability of productive investment but it is still a very small amount of the workers that are able to productively invest their remittances. This is attributed to the extreme poverty that migrant workers come from in Mexico. Migrant children’s education is positively correlated with years spent in the program. The primary result of SAWP participation is the socio economic elevation</p>

		Experiences on the Households of Mexicans: a seminal view of best practices.” FOCAL. (2007).	experienced by migrants and their families. But as with other articles the consensus is that SAWP supplements the lifestyles of migrants and their families, not often resulting in the productive investment of remittances.
2006	20 in-depth interviews with Mexican migrants in Ontario 257 surveys of Mexican migrant workers in southern Ontario	Carvajal, Lidia. “Farm-Level Impacts in Mexico of the Participation in Canada’s Seasonal Agricultural Workers Program (CSAWP).” (2008) Carvajal, Lidia & Johnson, Thomas. “The Impact of Remittances from Canada’s Seasonal Workers Programme on Mexican Farms.” (2016).	Conclusive that without participation in SAWP migrant farmers would not be able to productively invest in their farms. Participants’ claim 12.4% of remittances go towards children’s education vs 9.8 towards productive investments. Farmers within greenhouses claim that they are able to transfer skills learned in Canada to Mexico, much of the data identifies this as an aspiration rather than a current reality. Remittances help to invest in both farm and non-farm economic activity. Still a relatively small amount of remittances being used towards productive investment. 227 of 257 depend on their remittances from Canada.
2011-2012	21 semi structured	Wells, Don, et al. "Sustaining	SAWP provides enough in remittances that families shift

	<p>interviews with Mexican and Jamaican participants in southern Ontario</p> <p>60 interviews with open ended questions (of worker, their spouses and adult children) in Guanajuato.</p>	<p>Precarious Transnational Families: The Significance of Remittances From Canada's Seasonal Agricultural Workers Program." <i>Just Labour</i> 22 (2014).</p>	<p>from extreme precarity to precarity that is more regulated, and the material deprivation experienced eases temporarily. Mentions of productive investment in this study were rare, the researchers view SAWP as a coping mechanism for poverty, but not as a tool to overcome their situations. Children's education and housing once again play a prominent role in the responses of respondents.</p>
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Assessment of current state of knowledge

The current state of knowledge regarding how technology, knowledge and skills are being transferred through SAWP is poor at best. It is a topic that warrants study, currently there have been no studies specifically focussed on the transfer of knowledge and skills. The information presented within the literature review represents the entirety of information that exists currently on this topic specifically within SAWP. Migrant workers are coming to Canada, they are learning skills that relate to agriculture, but unfortunately they are unable to apply skills that they have learned within their country of origin. This is due to a variety of factors. The agricultural industry in Canada is very different from agricultural industries of Caribbean countries and Mexico. Access to agro chemicals and farming machinery is very different, therefore applying what skills have been learned can often be difficult.

As pointed out in the literature review, skills learned in Canada coupled with money remitted do not seem to be leading towards productive investment amongst participants of SAWP. It is true that there are some successes that have been identified. Yet these situations such as those in Colby, 1997 should be viewed as an exception to the norm rather than an example that is representative. Migrant workers are coming to Canada and elevating their

standard of living, they remit money and bring their families out of extreme poverty. Migrating to Canada enables farmers to enter a yearly migration pattern that subsidizes their elevated standard of living. And though they are learning skills and making more money in Canada than they could hope to in Mexico or the Caribbean, they still exist within the structural barriers of poverty. Russell (2003) puts forward many useful recommendations in the study that he completed for the North South Institute (NSI). There is an acknowledgement that there are many skills being transferred but the Jamaican government needs to actively step in to ensure that the skills learned within Canada are transferred and applied into the different areas of the Jamaican agricultural system where they would be of best use. This idea that Russell recommends proposes an integration of the farmers who have extensive work travelling between Canada and Jamaica, and then seeks to integrate these individuals within their national system of agricultural extension. These recommendations were made back in 2003, yet there is nothing within published literature that would suggest this idea has been taken further and implemented.

For the most part land that they can afford is rain fed and small holder agriculture yields subsistence lifestyles not prosperity. Opportunities for productive investment within the poor rural communities are scarce, therefore

investments that can be made by migrant workers are limited by the economic wellbeing of their communities of origin. For example, were a migrant worker and his family to open a shop selling goods, their ability to make sustained profits are limited by the economic resources of the people in the community that the shop was opened in. The data on this topic is shown in Basok (2003), the evidence is clear, the poorer the community the less likely investments in business will occur. At present SAWP is function with a short-term benefit mechanism in place, those who are poorest despite inability to use remittances to invest will be given priority. Those who would be much more likely to invest in a productive manner will face many more barriers to gain entrance into the program.

The Mexican government has used SAWP as a mechanism to alleviate extreme poverty. Program applicants from poorer areas with less economic resources are favoured over those with more. This is a good objective of the program; it ensures that individuals with a family to provide for are able to apply and be given seniority over another applicant who has a more secure financial situation. Using SAWP as a mechanism of extreme poverty alleviation is a contributing factor to the lack of productive investment being made by participants in CSAWP.

Best practices in relation to technology, skills, and knowledge transfer resulting from the SAWP

Transfer of learning has been of interest to scholars since the turn of the century. In the domains of experimental and educational psychology, transfer of learning is defined as the ability to apply material learned in one situation to another setting (Ellis, 1965). Studies in this tradition were conducted in laboratory or classroom settings. In the training literature, transfer of training is the “extent to which KSAs [Knowledge Skills Abilities] acquired in a training program are applied, generalized and maintained over some time in the job environment” (Baldwin & Ford, 1988).

Since that time, an explosion of research in this field had led to significant advancements in transfer of training. Subsequent researchers have noted that a number of variables, not captured in the transfer of learning literature, have an impact on transfer of training to workplace settings, namely trainee motivation, trainee attitude (Noe, 1986), trainee ability (Kanfer & Ackerman, 1989), self-efficacy (Gist, Schwoerer & Rosen, 1989) as well as the pre-training and post-training environment (Baldwin & Ford, 1988). Each of these will be reviewed in turn.

Individual characteristics

Cognitive ability and motivation. Ability is strongly related to an individual's performance and skill acquisition following a training program (Kanfer & Ackerman, 1989; Olea & Ree, 1994; Ree, Carretta, & Teachout, 1995). However, Maier (1973) asserted that even if individuals possess the prerequisite ability to learn the content of a course, performance will be poor if motivation is low. Trainee motivation is defined as the direction, effort, intensity and persistence that trainees apply to learning training program content before, during and after training (Kanfer, 1991). Several studies have found that motivation to learn has an effect on trainee skill acquisition, retention, and willingness to apply newly learned KSAs on the job (e.g., Quinones, 1995; Tannenbaum & Yukl, 1992). In a meta-analytic review, Colquitt, LePine, and Noe (2000) determined that trainee motivation is influenced by cognitive ability, self-efficacy, anxiety, age, conscientiousness and organizational climate. Of these factors, self-efficacy, an individual characteristic, has received the greatest amount of attention in the literature.

Self-efficacy. Self-efficacy is a person's "judgments of their capabilities to organize and execute courses of action required to attain desired performances.

It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses” (Bandura, 1986, p. 391). In short, self-efficacy refers to the extent to which people believe that they can cause, bring about, or make something happen (Gist & Mitchell, 1992). In terms of training, self-efficacy refers to a trainee’s belief that they can master the trained knowledge, skills or abilities, and perform them in their job.

Self-efficacy has been identified as an essential variable for trainee transfer (Tannenbaum, Mathieu, Salas, Canon-Bowers, 1991). In addition to strong main effects on training and performance outcomes, self-efficacy moderates and mediates the effects of training on transfer outcomes (Ford, Quinones, Segó & Sorra, 1992; Gist & Mitchell, 1992; Gist, Stevens & Bavetta, 1991; Gist, 1989; Saks, 1995). Consequently, there have been a number of studies that have investigated ways to increase self-efficacy as part of the training intervention. These strategies or interventions have been called *transfer enhancement procedures*.

Transfer enhancement procedures (Saks & Haccoun, 1998) can be designed to improve the probability of transfer of KSAs learned in the training program to the work setting (Kraiger, Salas & Cannon-Bowers, 1995). These approaches focus less on methods of instruction in learning content, and more on instruction in

how to maintain and generalize learning to work settings. A number of these studies are designed to explicitly increase the trainee's self-efficacy for the trained skill.

Frayne and Latham (1987) successfully adapted Kanfer's self-management methodology to increase the self-efficacy of state government unionized hourly paid employees regarding their job attendance relative to employees in the control group. Training in self-management (Kanfer, 1970, 1975, 1986) involves learning a series of techniques aimed at training people to alter their behavior in order to attain a desired outcome. These techniques include: (a) the setting of specific difficult goals; (b) the identification of obstacles; (c) monitoring one's goal attainment progress; and (d) the administration of rewards and punishers based on self-evaluation of progress toward goal attainment. Nine months after training the employees who had been randomly assigned to the control group also received training in self-management. Three months later, their attendance at work was as high as those who were in the initial training condition (Latham & Frayne, 1989).

Tziner, Haccoun, and Kadish (1991) studied the effectiveness of relapse prevention as a transfer of training mechanism for management skills with

military officers in the Israeli defense forces. Relapse prevention is a cognitive-behavioral strategy for reducing the likelihood of a relapse by teaching individuals to understand and cope with anticipated problems of relapse (Marx, 1982). Participants were trained in the requisite skills necessary to develop instruction schedules and training packages. Relative to people in the control group, those who received the relapse prevention training were more likely to apply the learned skills, as reported by their immediate supervisors.

Locke and Latham's goal setting (1990) has also been studied as a transfer enhancement procedure. Goal setting theory (Locke & Latham, 1990) states that specific difficult goals lead to higher performance than urging people to do their best. Wexley and Nemeroff (1975) were among the first to test the effectiveness of goal setting as a way to increase positive transfer of training. Employees who were assigned behavioral goals at the end of a two-day workshop on leadership and interpersonal skills exhibited greater transfer of the learned material on the job than did the participants in the control group. Wexley and Baldwin (1986) found that goals, whether assigned or set participatively at the end of training, resulted in higher transfer of training of time management skills than no goal setting, or even training people in relapse prevention.

Researchers have also borrowed techniques from clinical psychology as a potential method for increasing self-efficacy among trainees. Morin and Latham (2000) adapted the visualization methodology developed by Richardson (1988, 1994) to facilitate the transfer of training for supervisors. Mental practice, where goal setting was either implicit or explicit, was investigated in a pulp and paper mill as a post-training intervention with regard to self-efficacy and the transfer of newly taught communication skills. Six months after the supervisors had been trained, self-efficacy was significantly higher for the supervisors who engaged in either mental practice, or in mental practice combined with goal setting, than it was for those in the goal setting only, or the control condition. Both the supervisors in the mental practice, and in the goal setting and mental practice conditions were observed by peers to have improved their communication behavior on the job. No change in communication behavior was observed on the part of supervisors who set goals, but did not engage in mental practice, or were assigned to the control group.

Millman and Latham (2001) successfully adapted Meichenbaum's (1971) verbal self-guidance (VSG) technique into a training program for displaced managers. They found that 7, 2-hour VSG training sessions, conducted over a 2 ½ week period, resulted in significantly higher self-efficacy regarding re-

employment, and a significantly greater number of displaced managers finding jobs within 9-months of training, relative to the managers in the control group. Similarly, Brown and Latham (2006) found that training in VSG increased the performance of students in an MBA program. The composite criterion involved both an outcome (grade point average) and a behavioral measure (interpersonal skills). In another experiment, Brown (2003) found that VSG increased the collective efficacy and team-playing skills of college students who were working in groups on a simulated survival task.

A meta-analysis revealed that goal-setting alone, as a post-training transfer of training intervention had a lower average effect size ($r = .17$) as compared to behavioral self-management ($r = .34$) and relapse prevention ($r = .41$) (Haccoun, Labrèche, and Saks, 1997). In short, goal setting imbedded in training in self-management, or relapse prevention, is an effective way to increase positive transfer of training (see also Gist, Stevens & Bavetta, 1991; Murtada and Haccoun, 1996).

Gaudine and Saks (2004) attempted to differentiate between Marx's (1982) relapse prevention versus transfer-enhancement post-training transfer interventions. Trainee nurses, in a hospital setting, learned to work in

collaboration with families to structure learning environments and help the families explore personal issues (complex interpersonal skills). The transfer enhancement intervention was designed specifically to help trainees identify situations for application of the newly acquired skills to their work environment. Neither intervention improved trainees' self-efficacy, transfer behavior, or performance compared with that of a control group.

The authors concluded that the post-training transfer interventions may have been effective, and attributed the null findings to a lack of attention to the training situations and the organizational context. "Transfer research almost always begins with the premise that transfer of training is a problem and a transfer intervention is the solution. However, it now appears that this approach is far too simplistic. Instead, the extent to which transfer is a problem is likely to vary across training situations and organizational contexts..." (p. 71).

In summary, goal setting, self-management, relapse prevention, and the combination of goal setting and self-management enhance transfer of training. The preliminary evidence with respect to mental practice and verbal self-guidance indicates that they are also positive transfer interventions. These findings inform our knowledge of designing training program that ensure KSAs learned in a

training setting are used by the individual in their work setting. But these post-training interventions alone are not always sufficient to ensure positive transfer. Contextual factors need to be taken into account.

The transfer environment

“[S]kill application takes place within a specific (job or work group) as well as general (organizational) context, and all of these can have significant effects on training outcomes at the transfer level (Tesluk, Farr, Mathieu, and Vance, 1995), and therefore need to be considered and incorporated into the design and implementation of training programs” (Saks & Haccoun, 1998, p. 39).

Transfer of training is likely to be a function of the training program as well as the environment (Facteau, Dobbins, Russell, Ladd & Kudisch, 1995; Ford, Quinones, Segó, and Sorra, 1992; Richman-Hirsch, 2001; Tracey, Tannenbaum, and Kavanaugh, 1995). Noe (1986) proposed a model where the environment favourability affects transfer of training skills. In this model, perceived social support for training is a key variable. A supportive social context at work is one in which individuals view others as providing them with opportunities and reinforcement for applying skills or knowledge acquired during training on the job. Baldwin and Ford (1988) expanded these ideas by proposing that

environmental favourability or transfer climate consists of (1) social support and (2) “opportunity to use” as two key dimensions of an overall construct facilitating the use of training KSAs. In essence, social context affects training in at least two ways, encouraging individuals to use what they have learned, and by rewarding these behaviors (Goldstein, 1991). Hence, the term “transfer climate” (Tracey et al., 1995).

Rouillier and Goldstein (1993) found that climate is significantly related to transfer of training. In a sample of managers from fast-food restaurants who had participated in a management training course, climate information was gathered from 2-3 managers in each of 102 fast-food restaurant franchises. Manager trainees assigned to units that had a positive organizational transfer climate were rated as better performers of the behaviors learned in training than those in the control group. Rouillier and Goldstein concluded that a positive transfer climate consists of eight dimensions, namely: goal cues, social cues, task and structural cues, self-control cues, positive feedback, negative feedback, punishment and no feedback. These cues serve as reminders for trainees to use their newly acquired KSAs once they return to their jobs.

Tracey, Tannenbaum and Kavanagh (1995) tested the effect of social cues in a transfer setting. They investigated the influence of a transfer climate in supermarkets. Three weeks prior to participation in a 3-day training program on supervisory behaviors and skills, measures of supervisory behavior were collected from both the participants and their supervisor. The ratings were used for experimental purposes and therefore were anonymous. Upon completion of the workshop, participants and 4-5 coworkers assessed measures of climate as defined by Rouillier and Goldstein's (1993) eight dimensions. Finally, 6-8 weeks post-training, the participants and their supervisor completed measures of supervisory behavior. Training climate had a direct effect on training behavior.

Ford, Quinones, Sego and Sorra (1992) suggested a mechanism through which social support, as part of a positive work climate, affects transfer of training. In a study of soldiers trained in Air Force Aerospace Ground Equipment, Ford et al. (1992) hypothesized that in a highly supportive environment, an individual may feel comfortable performing all of the trained tasks. Conversely, an unsupportive environment could result in an individual only performing easy tasks, or seldom performing any of the trained tasks. Four months after completing the training program, graduates and supervisors completed ratings regarding the performance of the trained individuals. Airmen assigned to work

groups that were highly supportive performed more complex and difficult types of tasks than airmen in less supportive workgroups. These results are consistent with transfer research that shows a positive relationship between work context and training effectiveness. Opportunity to perform the task was found to be a moderating variable. In short, one reason why work context affects transfer of training is that it can either facilitate or inhibit an individual's opportunity to perform newly acquired KSAs.

Sources of support for applying what is learned in the training session to one's job include supervisors, peers, subordinates and upper management (Baldwin & Ford, 1988; Goldstein & Musicante, 1986; Noe, 1986). Peer support in particular has a notable positive effect on transfer. Fecteau et al. (1995) investigated the effect of perceptions of the training environment on perceptions of transfer in a cross-sectional survey study of managers and supervisors in a government agency. Perceptions of social support were positively related to perceptions of transfer. However, only subordinate and peer support were positively related to perceived transfer.

Summary

Much of the literature on transfer of training examines the relationship between training and application to a job site within the same national context. The application of these findings to the SAWP program is complicated by unique contextual, geographic, and national obstacles. Nevertheless, there are some lessons from this literature which can inform the research on the SAWP proposed below.

Identification of gaps in the literature to assist in developing opportunities for technology, skills, and knowledge transfer

There are prominent gaps in our knowledge about the SAWP program. When these gaps are considered relative to insights gained through academic knowledge of similar contexts, there are also real opportunities. This review has identified three main areas of potential intervention.

Proposal 1. Facilitate collective investment opportunities for SAWP workers in their home countries

As identified by Russell (2003), there is the potential for collective, coordination of investments among SAWP workers. The remittance programs ensure that funds are returned to the home countries of SAWP participants, yet the workers have no support to learn how they invest or maximize the value of the funds. As noted above, Russell (2003) proposed collective investment strategies as a method for workers to invest in order to benefit from economies of scale yielding greater returns on smaller investments.

For workers interested in building their own capacity, steps can be taken to assist. At a minimum, these individuals could receive guidance in the form of training or counselling on how to make financial investments in their own social

contexts. At a more coordinated level, workers who are geographically co-located could be encouraged to 'pool' their resources and invest as a community. These investments might include land to farm, farming equipment, or other agricultural resources. A feasibility study regarding geographical areas with high concentrations of SAWP participants and realistic investments strategies for each region, could allow for the formation of a pilot project.

Proposal 2. Facilitate the use of skills gained abroad in the home country post-assignment

Another gap in the literature presents itself when considering that none of the research that has been conducted of knowledge/skill/technology transfer through the SAWP program involves interaction with agricultural extension officers in the country of origin. Much of the academic research from other domains indicates that workers transfer newly learned skills when they are supported by others on the job. These individuals assist by pointing out potential opportunities to try out the newly learned skills as well as problem solving around setbacks, and challenges.

SAWP workers could be paired with counsellors or other support workers in the home country upon their return from assignment in Canada. The counsellor

could assist the worker in identifying ways to utilize the experience gained while abroad. Planning and goal setting has the potential to broaden the worker's learning from the SAWP experience. Similarly, providing learners with ongoing support in the transfer environment (i.e., home country) is also known to support the transfer of skills. For the SAWP worker, this might take many forms. Workers who are co-located in their home countries could be supported through regular meetings where application of the new skills, and insights into ongoing learning could be discussed. This intervention could be supported by government or other community leaders who are trained in facilitating ongoing learning sessions.

Proposal 3. Facilitate the transfer of training by implementing interventions and measuring their success

The broader transfer of training literature provides clear guidance on how to support workers in applying skills learned in one context into another context. The research clearly points to transfer enhancement interventions as having great potential for supporting transfer of learning. Broadly speaking, these interventions are designed to improve goal-setting and self-management skills. In particular, the participants focus their attention on applying the newly learned skills and overcoming obstacles or challenges that arise.

The academic literature has found that transfer enhancement procedures can be used to support transfer of training from one context to another. There are many different interventions that can be used to support transfer, all of which can be distilled down to some measure of self-management training and goal setting. Research tells us that individuals who prepare for transfer by identifying potential obstacles and developing a clear plan, are more likely to apply the newly learned skills to novel context.

Through consultation with program participants, an intervention can be developed that support the aims of the program. While there is an opportunity to develop novel, yet unknown interventions based on what is learned, there is also the possibility of using interventions that have been successful in other contexts and modifying them for the purpose of the SAWP program. The literature review above provides some insight into programs that might benefit SAWP workers and home communities (e.g., goal setting, self-management, verbal self-guidance).

In summary, this proposal focuses on advancing methods to support the application of the learned skills to the home countries and local communities. The academic literature on this topic provides insights into appropriate and specialized interventions.

Summary of recommendations

Employment and Social Development Canada (ESDC) states that a main objective of the Seasonal Agricultural Worker Program (SAWP) is to assist farmers in meeting labour needs that cannot be filled by Canadian citizens, and that a potential benefit of the program is the sharing of new skills and knowledge that can help the country's economy grow. There are many potential additional bi-products of this program. The potential for impact of this program on the worker and the families in their home country remains under-examined. The proposed recommendations aim to support and enhance the potential for the SAWP to benefit the home countries from economic and social perspectives.

The three projects recommended as a result of this review are intended to extend the reach of the SAWP by providing deeper benefits into the home communities. There is a lack of academic research examining the social and economic impact of the SAWP. We used the broader academic literature to propose a series of interventions to support SAWP workers in transferring the learned skills to their home environments.

We recommend programs that:

- Support coordinated investment strategies among SAWP workers.

- Leverage the presence of a local agencies who are able to provide ongoing coaching around the application of the learned skills upon return to the home country.
- Develop transfer of training interventions arming workers with the confidence and self-management skills necessary to apply novel skills in a challenging environment.

The proposal has the potential to impact workers, their families, and their communities.

FACT SHEET

- **Importance of the Agri-Food Industry**
 - \$100 billion-dollar industry
 - contributes 8% of Canada's GDP, up 32% in the past 20 years
 - employs over 2.1 million Canadians
 - accounts for 1 in 8 jobs in the Canadian economy (or 12% of Canadian employment)
 - number of farms has been steadily decreasing over the past 20 years
 - operating revenues for farms has been steadily increasing over the past 20 years
 - the minimum wage has been increasing over the past 20 years
 - the number of SAWP workers has been increasing and the number of domestic workers has been decreasing over the past 20 years

Major labour challenges of the industry

- Complexity of seasonality of harvesting and processing during peak periods
- Shortage of available domestic labour (caused by aging workforce and overall decline of available workers);
 - 9% of farmers mention labour shortages as the number one issue facing Canadian agriculture
 - vacancy rates are approximately 10% for small farms and 9% for large farms
 - 27% of demand for seasonal workers on small farms still unfilled, and 20% for large farms
- Over 80% of the seasonal general labour jobs are filled by Canadians, and the balance are filled by SAWP workers from the Caribbean and Mexico
- Number of workers in primary agriculture has declined by 20% in the last 20 years
- Increasing competition from other sectors (e.g. oil and gas)
- Restrictions from the SAWP and the TFWP
- Lack of available training for agriculture workers
- Shorter growing/harvesting cycles associated with the Canadian climate resulting in less attractive terms of seasonal employment

- Unique requirements of the jobs (working conditions etc)
- Rural locations
- Tight margins which affect ability to pay competitive wages
- Changes in the source of labour on the farm (less reliance on family)
- Negative view of employment opportunities within the industry
- Inability to recruit and retain employees
- Lack of effort to promote the industry
- Lack of effort in education and training

The SAWP Program

- SAWP started in 1965 with 265 workers
- Currently over 25,000 seasonal workers in Canada on approximately 2000 farms (71% of the SAWP workers and 66% of these farms are in Ontario)
- Of the 297,683 paid employees on farms in Canada, 185,624 are seasonal
- Recently there has been an increase in the number of applications
- SAWP workers are permitted to work within Canada for 8 months from Jan 1-Dec 15
- Average length of stay is 20 weeks
- Over 50% of the SAWP workers are from Mexico
- Employers of SAWP workers pay for part of the transportation provide free accommodations, monitor the quality of accommodations and contribute to WSIB and health insurance
- If an employer wants a worker from a country outside of the SAWP, then they need to apply through the Agriculture stream of the TFWP
- An employer must provide a minimum of 240 hours to a worker in order to participate in the SAWP
- When an employer wants to hire a worker through the SAWP, the federal government first issues a labour market opinion to make sure Canadians are looked at first
- SAWP workers contribute to Canada's Employment Insurance plan, and may be eligible for sickness, maternity/paternal, and compassionate care benefits if applicable.

- SAWP workers are contribute to and are eligible to receive all benefits from the Canada Pension Plan, similar to Canadians, even after returning to their home country.
- SAWP workers receive health benefits beginning on their first day of employment
- SAWP is administered through F.A.R.M.S. (Foreign Agricultural Resource Management Services) which is responsible for negotiating nationally with the federal government on behalf of the home countries and employers, and arranging travel for the workers. For these services, they charge the employer a fee of \$38 per SAWP worker
- The hourly wage rate for SAWP workers is set by ESDC, and is not less than the provincial minimum wage rate or the local prevailing rate paid to Canadians doing the same job, whichever is greatest
- SAWP employers assume an average additional cost of \$3,289 per worker (which equates to \$2.43 per hour)
- 85% of workers return on repeat contracts
- SAWP workers lose 6% of their wage to government taxes and liaison officers
- Liaison officers from home countries who reside in Ontario and are available at all times for the SAWP workers contributes to the success of the program

Social & Economic Impact of the SAWP

- SAWP workers can earn up to five times more than they could in their own countries, which enables them to support their families, educate their children and operate farms in their home countries
- Every farm worker in horticulture represents \$160,640 of economic impact on the Ontario economy
- Every farm worker in Ontario horticulture supports 2.2 jobs through the supply chain
- Impact of spending by the SAWP workers in the local Canadian communities totals approximately \$11,300,000 (2795 workers) in

Leamington, \$7,900,000 (1957 workers) in Niagara and St. Catharines and \$22,220,000 (5494 workers) in Simcoe

- Over \$20,000,000 is spent annually on travel for SAWP workers on Canadian workers
- If Ontario lost the SAWP, the economic loss could reach a minimum of \$440 million
- 25% of wages earned by SAWP workers returns to the workers' home countries
- SAWP workers return home with new skills and experience about agricultural practices that they can pass along
- There is a strong correlation between the number of SAWP workers and operating farm revenues (0.82)
- There is a strong correlation between the percentage of Agriculture workers in Ontario that are part of the SAWP and total farming revenues (.75)
- Remittances coming from Mexican SAWP workers totalled over \$174 million, approximately 80% of individuals' income
 - The majority of these remittances go towards general consumption (28%), housing improvements (14%), school fees (12%), transportation (10%) and farm investments (10%)
 - The longer the workers are in the program, the more money they are able to accumulate to put into large investments
 - Remittances earned in Canada have a large positive impact on their ability to invest
 - Consistency in work and accommodations provided mean that the remittances are much higher from workers in Canada compared with workers who travel to the US
- SAWP workers are exposed to new forms of agriculture and learning opportunities; whether this knowledge is being transferred back to the home countries has yet to be determined
 - 78% learned how to grow and select fruit, flowers and vegetables, 63% learned new skills with respect to the use of machinery, 19% learned new Greenhouse techniques, 7% learned new nursery

techniques. However, only 30% were able to find a use in Mexico for the skills they learned in Canada