

Australia's Pacific Seasonal Worker Pilot Scheme: why has take-up been so low?

Danielle Hay and Stephen Howes

Abstract

The Australian Government introduced the Pacific Seasonal Worker Pilot Scheme (PSWPS) in 2008 to allow Pacific Islanders to fill seasonal labour shortages in the horticulture industry, and announced in December 2011 that the scheme would be made permanent. Take-up of the scheme is increasing but has been very low. As of the end of March 2012, only 1,100 PSWPS workers have arrived since the scheme's commencement. This study tries to explain why the PSWPS has not employed more Pacific workers. It distinguishes between different hypotheses that could explain the poor outcome, and uses quantitative and qualitative analysis to test each hypothesis, including a survey of growers. The study finds a number of reasons for the low take-up. Growers are largely satisfied with their current labour supply, in terms of both quantity and quality: 93 percent of growers interviewed said they had no trouble finding labour, and 81 percent were satisfied with the quality of their existing labour force. The scheme is not well known: half the growers surveyed had simply not heard of the scheme, and most of those who had lacked information about it. The scheme also suffers from perceptions of high levels of risk and costs, including excessive red tape. Despite its slow start, PSWPS might still succeed on the basis of the productivity gains it has already shown it can deliver. But this is by no means assured: even growers who are unhappy with their current labour supply arrangements are reluctant to try the PSWPS. For the scheme to expand, it needs to be promoted more vigorously, and the scheme's financial and compliance costs need to be reduced. The Government will also need to attend to illegal horticultural labour practices, and the booming working holiday visa category. Most growers now rely mainly on backpackers, and their numbers have increased rapidly in recent years: we estimate the number of backpackers working on farms increased from 13,000 in 2001-02 to 37,000 in 2007-08. The special preference which horticulture receives under the working holiday visa category undermines the prospects for success of the PSWPS. The challenges involved in making the PSWPS work should not be underestimated. Other avenues should also be explored for promoting Pacific migration, including adoption of New Zealand's quota-based Pacific permanent migration schemes.

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1. Introduction

International labour mobility is increasingly recognised as central to the debate on international development and poverty alleviation (Clemens 2008). The economics of labour mobility are simple. Large returns are possible if unskilled workers are able to move from poor countries where they are abundant to rich countries where they are relatively scarce (Winters et al. 2005). The migrants themselves will gain from the much higher wages they will receive, the sending countries will benefit from the remittances the migrants send home, and the receiving countries will benefit from the injection of low-skill labour. International labour mobility is especially important for the Pacific island countries, many of whom have few alternative economic opportunities (World Bank 2011).

Seasonal migration programs involving unskilled or low-skill labour have been recommended as one of the most promising ways to enhance the development benefits of migration by international organisations (UN 2004; GCIM 2005; World Bank 2006), national governments (House of Commons International Development Committee 2004) and academics (Amin 2005; Koettl 2006; Pritchett 2006; Rodrik 2007; Winters et al. 2005). Such programs are widely used in the developed world and are increasingly seen as offering a potential “triple-win” – benefiting the receiving country, the migrant and their country of origin (McKenzie and Gibson 2010).

New Zealand's seasonal migration program, known as the Recognised Seasonal Employer (RSE) program, is considered best practice. It was introduced in April 2007 to solve the long-standing seasonal labour shortage in New Zealand's horticulture industry and to boost the economic growth and productivity of this sector, while contributing to New Zealand's broad development objectives in the Pacific region (McKenzie 2010; Ramasamy 2008). The policy has successfully addressed seasonal labour shortages with roughly 7,000 RSE workers employed annually. Employers are reaping the benefits associated with having reliable and more productive workers (IMSEAD Research 2010), and the financial gains of the transient workers are making a positive difference for their families and communities (McKenzie 2010).

By contrast, Australia's Pacific Seasonal Worker Pilot Scheme (PSWPS), which began in August 2008, has had a limited uptake despite prior claims of acute worker shortages. In the first year (2008-2009) only 56 visas were issued compared to the 100 visa cap for that year. Numbers increased to 67 in 2009-10 and, more dramatically, to 392 in 2010-2011. As of March 2012, another about 590 had arrived. Although the pace of arrivals is increasing, the cumulative total of just under 1,100 Pacific arrivals under the Pilot Scheme up to March 2012 is well below the 2,500 cap which covers the period up to June 2012.

Nearly all the arrivals so far – over 80 percent – have been from Tonga. Other countries sending workers into the scheme – PNG, Vanuatu and Kiribati – have between them sent just over 200 workers.

On December 19, 2011, the Australian Government announced that PSWPS would be made permanent. However, no changes in the scheme or in any other regulations were announced. Unless we understand why the take up of the scheme has not been higher, the risk is that its positive impact will continue to be tiny.

This study represents the first attempt to understand the low take up of the Pilot Scheme. Both quantitative and qualitative information is used, including interviews with stakeholders and participants, and a survey of growers. The focus is mainly on Australia. While the NZ experience is a useful reference point, a full comparison between the two schemes would be a separate research project.

The paper is organised into six sections. The next section discusses the evidence for the benefits of migration, and outlines Australia's PSWPS. Section 3 outlines the methodology of the research, and illustrates the research problem within a demand and supply framework. Section 4 contains the key results of the growers' survey. Section 5 discusses the results in relation to the hypotheses of Section 3. Finally, Section 6 concludes and provides some policy recommendations.

2. Literature Review and Background

2.1 Labour Mobility

There is strong evidence showing that labour market restrictions are one of the largest distortions in the global economy, imposing a greater burden than all remaining trade restrictions (Bank 2006; Clemens 2008; Winters et al. 2005). Hamilton and Whalley (1984) were one of the first to estimate the large potential gains from increasing labour mobility. They used a general equilibrium model to estimate the output gains from the removal of immigration controls in high-wage countries, resulting in the equalisation of the marginal value of labour across countries. The estimated annual global gains were in the range of 60 to 200 percent of World GDP in 1977. Klein and Ventura (2004) estimated complete labour liberalisation in OECD countries would increase world output by up to 172 percent. Iregui (2003) distinguished between skilled and unskilled workers, estimating large worldwide efficiency gains with full liberalisation of both skilled and unskilled labour markets, ranging from 15 to 67 percent of world GDP.

More recent modeling has analysed the benefits of more realistic migration reforms. Walmsey et al. (2005) used a general equilibrium model to examine the effects of increasing temporary workers' permits by 3 percent of industrialised countries' current skilled and unskilled workforces. They estimated a US\$156 billion increase in economic welfare annually (at 1997 prices). As one would expect, the projected gains were much larger for movement of unskilled workers than skilled workers. More recently the World Bank (2006) estimated that the same 3 percent rise in rich countries' labour forces would deliver a benefit of US\$305 billion a year to citizens of developing countries and \$51 billion gain to rich-country residents (at 2001 prices). This was almost twice the combined annual benefit of full trade liberalisation (US\$86 billion), foreign aid (US\$70 billion) and debt relief (US\$ 3 billion in annual debt service savings).

Despite the caveats associated with general equilibrium estimates, it is widely accepted that the differences in productivity and wages across the world are so large that increasing international labour mobility offers huge rewards. In the words of Rodrik (2007), "If international policy makers were really interested in maximising worldwide efficiency, they would all be busy at work liberalising immigration restrictions."

For migrant-sending countries, the largest economic benefit from migration is remittances: aggregate remittances are more than twice the size of international aid flows (The World Bank 2006). There is increasing evidence that remittances have a positive impact on economic development and welfare (Rapoport & Docquier 2005; The World Bank 2006). Remittances may contribute to poverty alleviation (Adams 2006; International Monetary Fund 2005), the diversification of household income and consumption smoothing (Balli & Baili 2011; World Bank 2006; Yang 2007). Studies show that remittances help facilitate human capital formation by improving access to education (Cox-Edwards & Manuelita Ureta 2003; Lopez-Cordova 2006; Yang 2003) and health (Hildebrandt & McKenzie 2005). Remittances also lead to increased savings and investment (Osili 2007; Ozden & Schiff 2006) and stimulate entrepreneurial activity (Dustmann, C & Kirchkamp 2002; Mesnard 2004). Beyond the household, there is evidence that remittances provide a critical source of foreign exchange and improve macro-economic stability (Adams & Page 2004; Ratha 2003).

Remittances are the lifeblood of many Pacific families (World Bank 2006). The amount of remittances sent to the Pacific totaled US\$470 million in 2008, primarily from Australia, New Zealand and the US (Australian and New Zealand Government 2010). Some Pacific countries are the world's highest recipients of remittance flows relative to the size of their economies; remittances comprise 36 percent of Tonga's GDP and 26 percent of Samoa's GDP (OECD cited in Australian and New Zealand Government 2010). The World Bank has recently called for a reduction in the Pacific island region "in barriers to increased flows of short and eventually, longer-term or permanent migrant workers to large markets", such as Australia (World Bank 2011, p.16)

Despite mounting evidence that supports the benefits of at least unskilled migration from developing countries, relaxing restrictions on labour mobility remains highly controversial in developed countries. Migrant-receiving countries worry about the costs of assimilating workers and their families, with concerns that migration will exacerbate inequality, create a burden on the welfare state, change culture, and increase crime (Pritchett 2006; Ruhs 2006).

2.2 Temporary Migration Programs and Seasonal Agricultural Labour Schemes

Temporary migration programs (TMPs) appear to offer a way forward. TMPs are argued to be more politically palatable than permanent migration as they balance the benefits to the sending-countries with recipient-country concerns (Clemens 2008; Pritchett 2007). Since migrants are temporary, issues in relation to citizenship and culture are side-stepped, and, since they come to fill established vacancies, concerns about welfare-dependence and labour displacement can be set aside (Ruhs, 2005).

Seasonal agricultural labour schemes are unskilled TMPs. Almost all OECD countries have such seasonal schemes. See Table 1 below for a summary. Studies show contrasting experiences and some scholars remain skeptical. Critics of these programs raise concerns that workers will over-stay and/or reduce domestic wages (Borjas 1994; Dustmann 2000). Others raise concerns over possible exploitation of workers and the possibility that workers may not earn enough to make it worthwhile (Mayer 2005). These arguments are based on the fact that many of the past TMPs failed to meet their stated policy objectives, while generating a number of unanticipated consequences – most notably the *Bracero* program in the US (1942-64) and the German *Gastarbeiter* program (1955-73) (Ruhs 2006). Advocates, on the other hand, argue that the problems can be overcome and that the rewards for trying are large enough to make the effort worthwhile. It is accepted that a significant degree of government involvement is required (Luthria 2011; Ruhs 2006).

Table 1: Seasonal agricultural labour schemes

Scheme	UK: SAWS	US: H-2A	Germany	Canada: SAWP	NZ: RSE
Maximum stay	6 months	1 year (can be extended twice)	3 months	8 months	7 months
Annual number	16,250 (2005)	45,000 (2002)	260,000 (2001)	18,000 (2004)	7,1000 (2010)
Recruitment	Students from non-EU countries	No restriction on country of origin	12 bilateral agreements with Central and Eastern European countries	Bilateral agreements with Mexico and Caribbean	Bilateral agreements facilitate recruitment from a number of Pacific island countries
Workers tied to one employer?	Yes	Yes	Yes	Yes	No
Who pays transport costs?	Worker	Employer	Negotiable	Cost shared 50/50	Cost shared roughly 50/50
Free housing?	Yes	Yes	No	Yes	No
Comments	High overstay rate 4-10%	High reporting of abuse		High return rates	Seen as best practice

Source: World Bank 2006

New Zealand's Recognised Seasonal Employer (RSE) program was launched in 2007 with a focus both on development in the Pacific and on benefiting employers at home. Large numbers have participated in the scheme from the start (see Table 2), mainly from the Pacific though a portion of Asian workers are also recruited under this scheme.

New Zealand, and indeed the world more broadly, view the RSE as a success. An evaluation conducted by the New Zealand Department of Labour concluded that "overall, the RSE Policy has achieved what it set out to do" (Evaluate Research 2010). The policy is found to have provided employers in the horticultural industry with access to a reliable workforce, with productivity gains emerging as workers return for subsequent seasons. The problems which can sometimes afflict TMPs were avoided: "The evaluation finds little displacement of New Zealand workers; almost all workers have returned, with overstay rates below 1 percent; and concerns about worker exploitation have at most arisen in a couple of isolated cases" (Evaluate Research 2010).

Participating in the RSE has had positive outcomes for seasonal workers and their families. Gibson and McKenzie (2010) conducted a multi-year evaluation to measure the impact of participation in this program on households and communities in Tonga and Vanuatu. Using a matched difference-in-differences analysis based on surveys

conducted before, during, and after participation, the authors find that the RSE program had a large positive development impact. Specifically, they found that per capita incomes of RSE households increased over 30 percent relative to the comparison groups in both countries. RSE households accumulated more assets, doubled the rate of home improvement and increased savings. Participation in the RSE increased household's subjective standard of living and resulted in additional benefits at the community level such as increased child schooling. Community leaders are overwhelmingly positive about the policy (McKenzie 2010).

"These results make this seasonal migration program one of the most effective development interventions for which rigorous evaluations are available" (McKenzie 2010; see also Maclellan 2008). The program is now being heralded as international best practice, a model for other countries to follow (International Labour Organisation 2011).

2.3 Australia's PSWPS

The Pacific Seasonal Worker Pilot Scheme (PSWPS), announced in August 2008, runs until June 2012. In December 2011, the Government announced that the PSWPS would continue as an ongoing program, the Seasonal Worker Program. The potential for the scheme was seen as huge. A June 2008 conference of stakeholders organized by the Lowy Institute on the scope for "an Australian seasonal work visa scheme for Pacific islands labour" noted that "20,000 workers would be required in the horticulture sector" (Hayward-Jones 2008, p.2).

In the first two years, only 123 workers arrived. The scheme has gathered momentum since. Yet, the cumulative number of arrivals – 1,093 up to 28 March 2012 – is still a very small number whether judged by the cap set on total pilot numbers up to June 2012 (2,500), or by total employment in the horticultural sector,² or by the 7,000 mainly Pacific islanders now working every year in New Zealand under the RSE.³

² Estimates of the size of the Australian horticultural labour force vary, but a commonly-cited figure is 108,000.

³ The value of horticultural production is higher in Australia than in NZ: \$8.4 billion in 2009-10 (DAFF, 2012) versus about \$NZ4.7 billion in 2008 (Horticulture New Zealand 2012). Presumably, therefore, the total Australian horticultural labour force is also much larger.

Table 2: Annual number of seasonal workers in Australia and NZ

	2007-08	2008-09	2009-10	2010-11
New Zealand (RSE)	4,451	7,695	6,895	7,052
Australia (PSWPS)	-	56	67	392

Source: PSWPS information from DEEWR; RSE from Immigration New Zealand (2011)

Note: These are financial years from July to June. Another 591 workers arrived up to 28 March 2012.

There is a high degree of government oversight of the scheme. Two departments are involved in administering operational aspects of the scheme, the Department of Education, Employment and Workplace Relations (DEEWR) and the Department of Immigration and Citizenship (DIAC). Pacific workers work for Eligible Growers but are employed by Approved Employers (AEs), who might themselves be growers or otherwise labour-hire companies. When an organisation is found suitable as an AE, it is offered a Special Program Agreement from DIAC and a Deed of Agreement from DEEWR. Every time an AE wishes to hire workers, it needs to conduct labour market testing (by lodging vacancies with Australian government employment services for a period of two weeks) and submit recruitment and pastoral care plans. Eligible growers are inspected to ensure compliance with accommodation and other requirements.

AEs place workers with Eligible Growers and are responsible for: pastoral care; ensuring the appropriate accommodation is available; costs including wages, superannuation, worker compensation, state taxes, a portion of the workers' return airfare (see footnote 5 for details) and domestic travel; recruitment; monitoring; administration including submissions to recruit, pastoral care plans and monthly reports; and lastly complying with workplace relations, immigration and occupation health and safety laws.

AEs can recruit directly or can work with Pacific governments to recruit workers as per arrangements specified in Memoranda of Understanding (MoUs) between the Australian Government and other participating governments. About half the seasonal workers to date have been recruited from work-ready pools, which are organised by the sending-country government (DIAC 2011c). PSWPS workers are paid either an hourly rate and/or a piece rate depending on the AE contract.

Horticulture award rates set the minimum full time hourly wage at \$15.51 (as of July 2011) with a 25 percent casual loading rate bringing it to \$19.39 per hour. If workers are paid a piece rate, they are paid at least 15 percent more per hour than the minimum hourly rate (DEEWR 2010a).

Until recently, only Vanuatu, PNG, Tonga and Kiribati were approved as sending countries, and most workers have come from Tonga (607 out of 726 up to November 2011). In September 2011, Nauru, Samoa, Solomon Islands and Tuvalu were also approved as sending countries. From July 2012, when the PSWPS becomes permanent, Timor Leste will also become a sending country.⁴ Workers who participate in the RSE are not eligible for the PSWPS.

The rules around the PSWPS began to be revised in late 2009. The first changes were to allow any organization, including a grower, to apply to become an Approved Employer (initially only labour hire companies had been eligible to be AEs) and to remove the initial geographical restriction which limited the PSWPS to the Swan Hill–Robinvale and Griffith regions. Guidelines were further revised in December 2010 in response to an interim evaluation. Previously the guaranteed minimum amount of work required was 6 months work at 30 hours per week, but now AEs have an additional 2 options: 5 months work at 35 hours per week and 4 months work at 38 hours per week. Changes to cost sharing were also introduced. AEs are still required to pay the international return airfare upfront, but now recoup a variable amount of the cost from the worker depending on their nationality, rather than half for all workers.⁵ Lastly, AEs previously paid all domestic transport costs; now they can recover up to \$100 for domestic transport from each PSWPS worker (DEEWR 2010b).

There is a dearth of public information and research on the PSWPS. The Australian Government commissioned an interim evaluation, but only the Executive Summary has been made public (TNS Social Research 2010).⁶ An evaluation of the development impacts of the Australian PSWPS is positive (Gibson and McKenzie, 2011), as are most

⁴ Timor Leste already has access to a pilot program in relation to tourism in Broome, WA.

⁵ For example, 50% for Tongans, 80 percent for ni-Vanuatu, 35 percent for i-Kiribati, 55% for PNG workers. Employers pay a smaller ratio for workers from countries with higher airfares.

⁶ A final evaluation was to be completed in August 2011, but, if it has been done, it has not been released (TNS Social Research, 2010).

reports from farmers who have used the scheme. Ball et al (2011) assesses how the PSWPS manages the risks of exploitations, and is generally favourable. There is some commentary in the media and some initial analysis (Malaulau 2010; McLellan 2010) as to why the scheme's recruitment has been disappointing, but there is no systematic analysis. In particular, there is no research on growers' perspectives or experiences. Given that the scheme is demand driven, appreciating the point of view of growers is critical to understanding the constraints on and problems with the PSWPS.

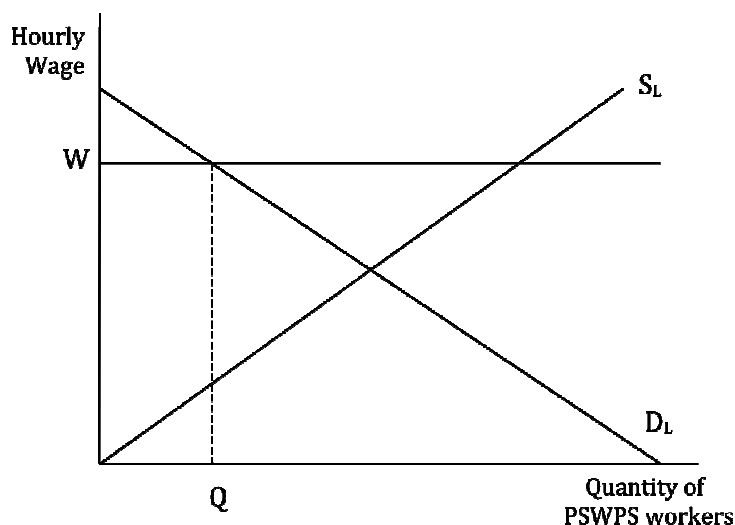
3. Methodology

3.1 Research Framework

The market for PSWPS labour can be situated in a simple supply and demand framework. As discussed above, the price of hiring a worker under the PSWPS is fixed. The way the scheme was anticipated to work is shown in Figure 2, which shows the envisioned annual demand for and supply of Pacific seasonal workers. Note that the demand curve is downward sloping, implying that seasonal and local workers are imperfect substitutes.⁷ The PSWPS wage is defined as the wage paid by employers. Thus it includes the wage provided to the employees (defined by minimum wage conditions), but also travel, pastoral care, co-ordination and compliance costs. At the prevailing "all-in" wage, it was expected that there would be excess supply of PSWPS workers – hence the reference to the scheme being demand driven. In an uncapped scheme, demand at the wage would determine take-up. With a cap, there is the possibility that demand would exceed the cap, in which case there would need to be some form of rationing. For simplicity, and consistent with what has happened, we assume no rationing. A pilot which indicated that there was large potential for a seasonal worker program in Australia would be one in which, among other things, Q was roughly equal to or above the scheme cap (or its annual equivalent). More generally, a successful pilot would be one in which Q was large.

⁷ This means that the employer does not regard PSWPS and other workers as perfect substitutes. If (s)he did, then the demand for PSWPS workers would be flat, as any increase in the wage above that paid to other workers would eliminate demand for PSWPS workers.

Figure 1: The envisioned market for PSWPS labour



However, in fact, at the fixed price there was either very little demand for Pacific seasonal labour or very little supply. Why?

The following sub-sections distinguish and explain the different demand- and supply-side hypotheses that could explain the low take-up of the scheme to date. Part of the value of this approach is to set out, in a rigorous manner, the different explanations that have been put forward casually from time to time, and categorise them. The hypotheses are then tested using a mixture of quantitative and qualitative information.

3.2 Hypotheses

A. The current labour supply for the horticultural sector is adequate and therefore there is no demand for PSWPS labour

(A.1) The horticultural sector is not facing a long-term labour shortage or labour quality problem

The PSWPS is just one of at least five different possible ways growers can meet seasonal labour demand. The PSWPS competes not only with domestic employment arrangements, but with other migrant categories, including Working Holiday Makers (subclass 417 and 462) to which Pacific Islanders do not have access,⁸ New Zealanders

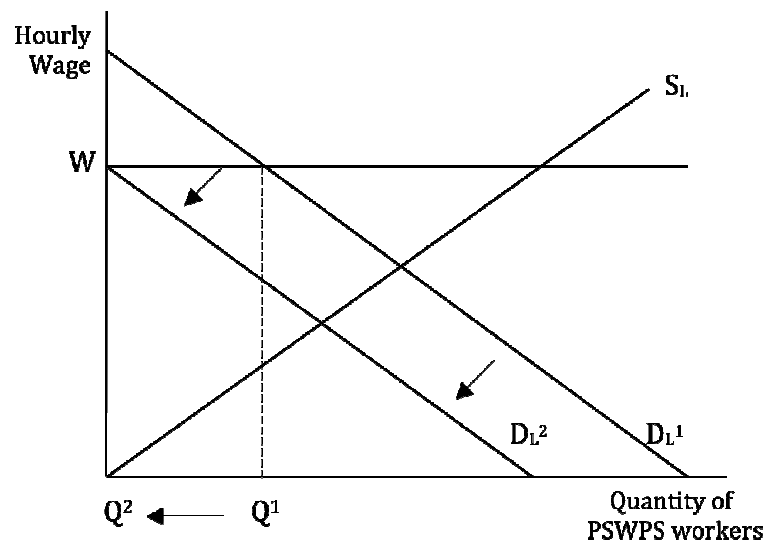
⁸ There is one minor exception to this generalization. See Appendix 2 for details.

under the Trans Tasman arrangement, international students (visa subclass 572, 573 and 574), and also undocumented workers. There is a large and growing presence of overseas workers and undocumented workers in the Australian horticulture industry (DIAC 2010, 2011a, 2011b).

Figure 2 shows what could happen with a smaller aggregate labour shortage than envisaged. With a much lower demand curve for Pacific workers, it is possible that, at the fixed wage, there would be little or no demand. Given that the scheme is demand driven, this would explain why so few PSWPS workers have been employed.

It is also often argued that an advantage of PSWPS workers is their higher quality. For example, unlike backpackers, they are reliable, and will stay till the job is done. However, if in fact employers are more satisfied with the quality of their labour supply than was envisaged, again the demand for PSWPS workers would be reduced, and the effect illustrated in Figure 2 could be observed.

Figure 2: The low take-up of the PSWPS explained through insufficient demand



(A.2) The global financial crisis (GFC) increased labour supply in horticulture

The PSWPS was announced in August 2008, in the midst of the global financial crisis. It has been argued that the subsequent economic downturn over 2008 and 2009 increased labour supply in the Australian horticulture industry and reduced demand. On the supply side, unemployment rates increased and it is possible that the availability of domestic workers meant growers were unable to demonstrate unmet local labour demand. Overseas Working Holiday Makers also increasingly entered the labour market due to unemployment (TNS Social Research 2010). The effect of this would again be as per Figure 2, the difference being now that this slump in demand should only be temporary as it was driven by the GFC.

B. Reputational factors have reduced PSWPS demand

(B.1) The scheme in general has a poor reputation

It has been suggested by some that the scheme has a poor reputation amongst growers, that insufficient information is available about it, and that it is perceived as being costly and onerous. Confusion over conditions and obligations, and uncertainty over the economic benefits and productivity gains may all contribute to the scheme's negative reputation (Malaulau 2010). Growers also remain uncertain over the continuation of the scheme. It was introduced as a pilot – involving a small number of workers over a finite period – so that the program could be evaluated before expansion. But then, if growers are not assured the program will continue, they may not invest in it. Finally, it has been argued that reservations and antipathy towards the scheme spring from the departure it represents from Australia's tradition of non-discriminatory and permanent migration (Millbank 2006).

If any of these factors were to hold, it would again reduce demand for Pacific labour, as per Figure 2, this time not because there is no aggregate shortage, but because of grower reluctance to respond to any shortage by turning to the PSWPS. Note that an extreme case of this hypothesis, and one which turns out to be important for the study, is that growers might simply not have heard of the scheme. Lack of a reputation will have the same demand-suppressing effect as a bad reputation.

(B.2) The forced use of labour hire companies is perceived as a risk

The PSWPS gives AEs the exclusive responsibility for recruiting, employing, and placing the Pacific seasonal workers. Growers have no discretion over the nature of employment arrangements, which are dictated by government (MacDermott & Opeskin 2010). Until the end of 2009, growers could not be AEs. Rather, they had to be labour hire companies. It has been argued that labour hire companies have a poor reputation in the eyes of the growers (Newton cited in Callick 2010) and that any scheme which mandated their use would be inflexible, costly and unresponsive to fluctuations in the demand for labour (Malaulau 2010). Thus, the argument runs, growers have been unwilling to use labour hire companies and demand for PSWPS workers has been reduced.

(B.3) Pacific Islanders have a poor reputation

It has been said that growers have antipathy towards engaging with the scheme due to reservations over Pacific workers. The work ethic and productivity levels of Pacific seasonal workers are unknown to Australian growers. Pacific seasonal workers are removed from their familial context, community responsibilities and obligations. This may create a greater vulnerability to inappropriate, disruptive behaviour such as alcohol abuse, which was initially a problem for New Zealand's RSE program (IMSEAD Research 2010). Therefore, it has been suggested, growers may be unwilling to risk contracting PSWPS labour.

These various reputational factors would have the same result, illustrated in Figure 2, of a downward shift in the demand curve for PSWPS labour, and therefore, at the fixed wage, a reduced take-up.

C. The costs of the scheme are too high

(C.1) Expensive conditions and excessive red tape make the scheme uncompetitive

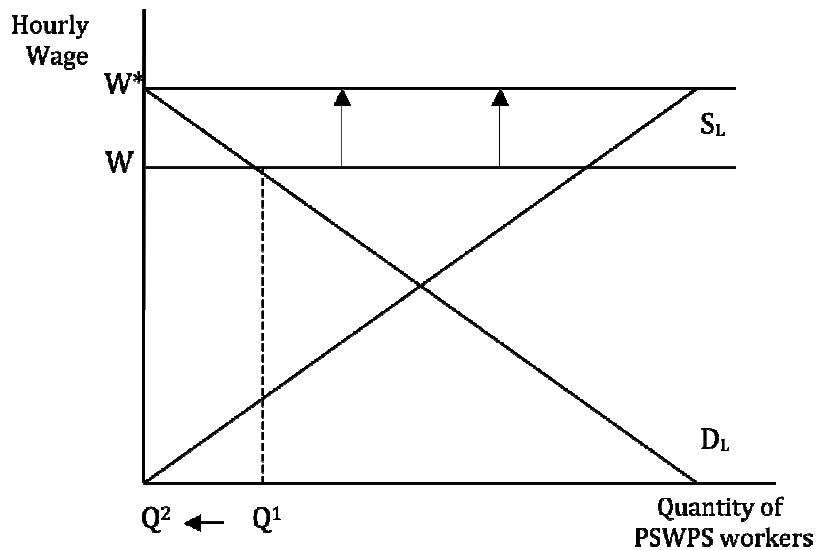
Traditionally the horticultural industry has been subject to limited regulation and has relied on a highly casual and transient workforce. However, the pilot scheme has a high degree of centralised government control and oversight to ensure minimum standards are met and the risk of adverse outcomes is minimised. Regulatory control comes from

intergovernmental agreements, government departments, local advisory bodies, and AEs (TNS Social Research 2010). As a result, it has been argued, the very web of regulation and micro-management to protect Pacific workers has made the employment of PSWPS workers unattractive. This argument has two aspects.

First, the minimum wage conditions, pastoral care requirements and travel costs may push the costs up of hiring seasonal workers relative to other types of labour, where travel costs do not need to be paid, and minimum wage conditions may be violated. These costs can be predicted, but if the demand is less than predicted (as in Figure 2), perhaps because the wage paid to other sources of labour is over-estimated, then the high wage would become the binding constraint, and the reason for sparse take-up.

Second, red tape (the costs involved in making applications and reporting to the government) creates high entry barriers and increases the cost of employing PSWPS workers. If compliance costs were higher than expected, as has been suggested, then the effective costs of the scheme would increase from W to W^* . This would reduce or even eliminate demand, as Figure 3 shows.

Figure 3: The low take-up of the PSWPS explained through high costs



Note: W is increased to W^* by red tape or coordination costs

(C.2) Coordination costs are high due to fragmentation in the horticultural industry

The horticultural sector is fragmented and diverse. It comprises over 140 different horticultural products and market conditions and regulations vary substantially across states (Horticulture Australia Limited 2010; Maclellan 2010). It has been argued that this fragmentation has increased both the fixed set-up costs and the variable ongoing costs for labour hire companies, increasing the cost of Pacific seasonal workers. It has been also argued that the small size of the pilot schemes and the small number of workers employed over vast distances, with the required close management of workers and the absence of economies of scale, has increased coordination costs (Ball 2010). In a similar vein, it has been argued that the fragmentation within the horticulture industry reduced the cost effectiveness of the scheme and the labour hire companies' quality of service, reducing the commercial viability of the PSWPS and resulting in low demand for PSWPS labour (Malaulau 2010).

Again, this sort of argument can be understood with reference to Figure 3. Excluding coordination costs, there would be enough demand to fill the target visa quota. However, the coordination costs of using the PSWPS (having to move growers from one farm to another, and having to coordinate the picking seasons of several farmers) raise the effective hourly wage attached to PSWPS workers, again as per Figure 3, reducing or even eliminating the demand for PSWPS workers.

D. The scheme is not attractive enough to Pacific workers

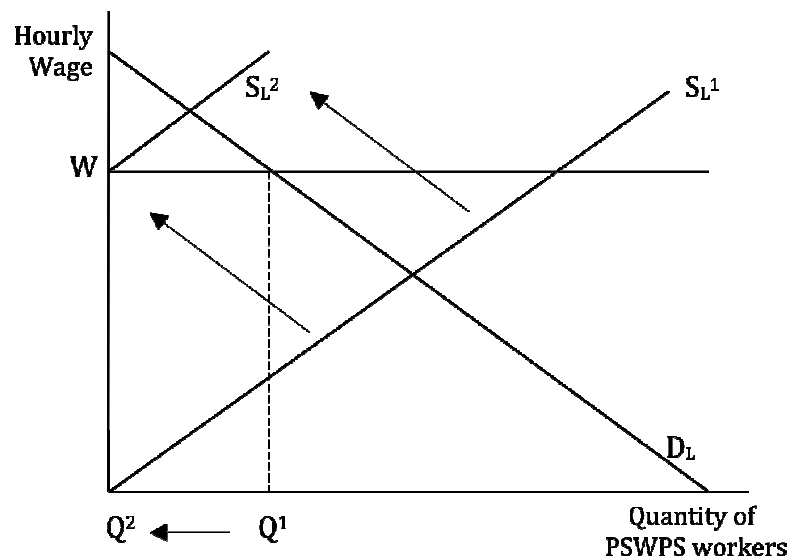
(D.1) Tax rules and the high cost of remittances have made the scheme uncompetitive for PSWPS workers

Until a change introduced very recently, which brought this rate down to 15 percent, Pacific seasonal workers fell into the non-resident category and were thus taxed at a flat rate of 29 percent. By contrast, a concessional tax rate of 13 percent is applied to Australian residents working as harvest labour (Australian National Audit Office 2005). Furthermore, workers who fail to work for 6 months during the seven-month visa period may fail to meet the tax criteria set for them, and be subject to a 45 percent tax penalty.

Additionally, the costs of remitting money from Australia to the Pacific are amongst the highest in the world. The average cost of remitting money from Australia, across all remittance corridors to the Pacific Island countries, according to one estimate, is 21.7 per cent of the amount remitted (DEEWR 2010). In comparison, the average cost of sending remittances from New Zealand is 15.2 percent. It has been argued that the higher tax rates and remittance fees in Australia contribute to the PSWPS being less attractive than the RSE. If workers cannot save enough in Australia to make it worthwhile for them to give up employment opportunities at home, they will not come.

High remittance costs and tax rates, if underestimated initially, can be understood as a shift upward in the supply curve relative to the hourly wage paid by the employer, as Figure 4 shows. If the supply curve is SL^2 rather than SL^1 , this would explain the minimal quantity of PSWPS workers employed.

Figure 4: The low take-up of the PSWSP explained through inadequate supply



3.3 Survey

A survey of growers and Approved Employers was carried out in May and June 2011. The survey consisted of telephone interviews with 183 growers and 8 AEs. In addition, face-to-face interviews were carried out with other stakeholders.⁹ The interviews were semi-structured. See Appendix 1 for the full questionnaires. The amount of information obtained depended on the growers contacted. The full questionnaire inquired into the grower's satisfaction with their workforce and current labour supply. It also inquired into growers' perceptions of, and attitude toward the PSWPS. AEs were questioned about their experiences and the costs and benefits involved in participation. Ethics approval was granted by the Australian National University on April 21, 2011.

Growers' contact details were sourced from the telephone directory. Growers were selected in order from 'A' to 'T' (due to time constraints 'U' to 'Z' were excluded). The owner/manager of the enterprise was invited to participate. The sample of growers included a broad cross-section of the horticultural industry, covering all states and territories of Australia, including producers in all major crop segments (pome fruits, stone fruits, dried fruits, citrus, berries, vegetables, wine grapes, table grapes and nuts) and various sized enterprises. A potential bias is under-coverage due to reliance on the telephone directory. Some growers may not have been listed in the white pages and smaller businesses may be more likely to have an unmanned telephone. The high non-response rate may have been a source of bias; the response rate was 18 percent. Non-response bias results if the respondents differ in meaningful ways from non-respondents. It is hard to quantify the bias introduced by the non-response rate, except that it probably biased the sample against small growers since they would more likely be out in the fields themselves. Overall, 183 growers were surveyed from across Australia.¹⁰ This is the only survey so far undertaken of employers' perspectives of the PSWPS. It compares well to other similar surveys,¹¹ and is sufficiently large and representative to draw confident conclusions from.

⁹ The Department of Education, Employment and Workplace Relations representative Darren Hooper and journalist Nic Maclellan were interviewed.

¹⁰ 46 from Victoria, 36 from NSW, 33 from SA, 22 from Queensland, 18 from WA, 15 from Tasmania, 9 from NT, and 4 from ACT.

¹¹ For example, Mares (2006) surveys 176 growers in relation to their labour needs and attitudes to labour shortages in Murray Valley.

Perhaps because the survey was undertaken by phone, it was often not possible to solicit answers on all or even most of the questions in the questionnaire. However, very high response rates were obtained on the key questions – which are the ones reported on in this paper.

Growers and AEs participating in the scheme were also sought out from the DEEWR website to ensure coverage; 4 out of 5 participating growers who were contacted responded and 8 out of 13 AEs responded.

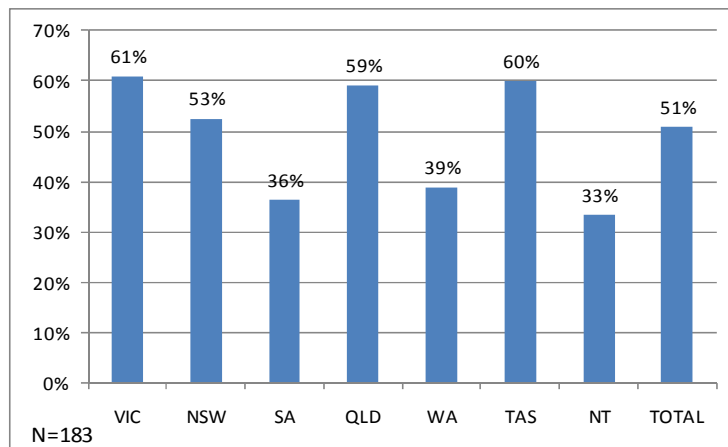
4. Results

The key findings from the growers' survey are graphed below. The main results can be summarised as follows:

- About half of the growers had not heard of the scheme (Figure 5)
- Only a tiny minority (4 percent) of growers who had heard of the scheme were either participating in it already or planning to (Figure 6).
- Among growers who were aware of the scheme, the main reason for not participating (now or in the future) was because there was “no need” (70 percent). In other words, they were satisfied with their existing labour supply arrangements. Significant minorities viewed the scheme as too risky (16 percent) and too expensive (9 percent). The risks identified related to the need to commit to bringing in pickers ahead of time, for several months, but also to the need to work under a government-related scheme, and more generally to shift from a tried and tested to a new way of doing business (Figure 7).
- Half of those growers who had heard of the scheme were unsure of its reputation. About equal numbers (around a quarter each) think of it as having a good and a bad reputation (Figure 8).
- Most growers (73 percent) report that backpackers are their main source of labour (Figure 9).

- Most growers (93 percent) have no difficulty finding sufficient seasonal workers (Figure 10).
- Almost one fifth of the growers (19 percent) are dissatisfied with the quality of their current labour supply (Figure 11).
- 17 percent of growers who had heard of the scheme and were unhappy with existing labour supply arrangements (quantity or quality) were planning to use it. Others were not planning to use it because they still didn't perceive the need (21 percent), because the scheme was too risky (29 percent), or because the scheme was too expensive (33 percent) (Figure 12).
- Just over one third of the growers (36 percent) use contractors to source labour (Figure 13).

Figure 5: Percentage of growers who have heard of the Pacific Seasonal Worker Pilot scheme



Note: ACT is included with NSW in this and the graphs following.

Figure 6: Have you participated in the scheme (for growers who had heard of it)?

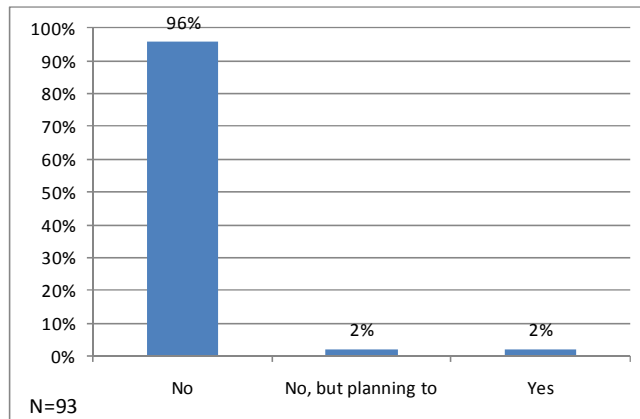
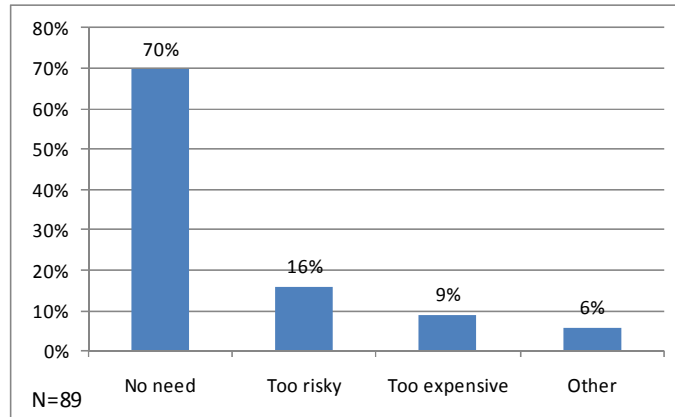


Figure 7: What is the main reason you did not participate (for growers who had heard of it)?



Note: Growers planning to participate also excluded.

Figure 8: What reputation do you think the scheme has (for growers who had heard of it)?

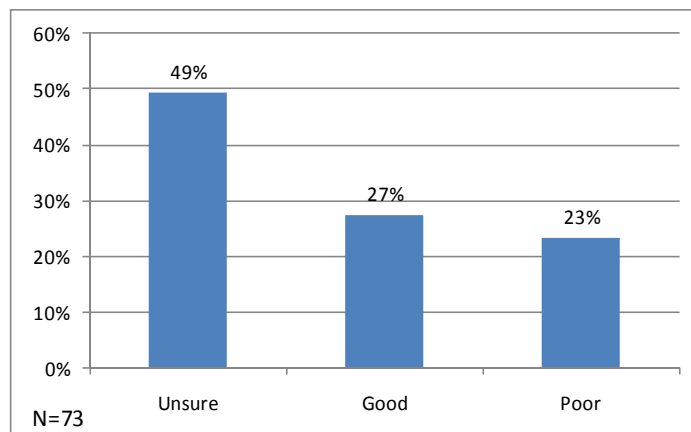


Figure 9: What type of workers do you mainly employ?

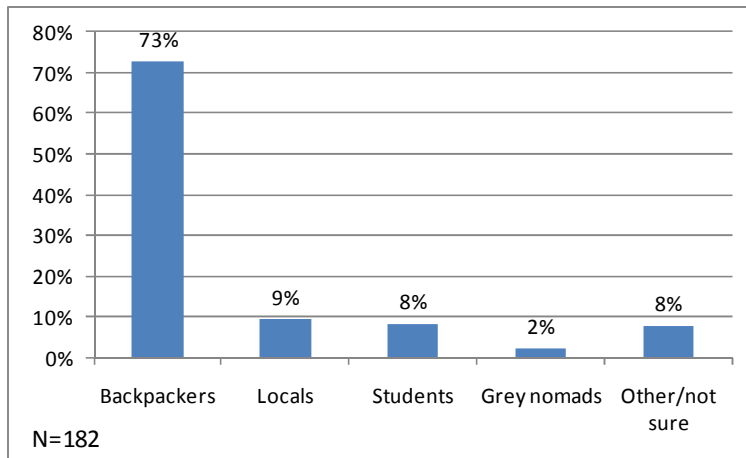


Figure 10: Percentage of growers having difficulty finding sufficient seasonal workers

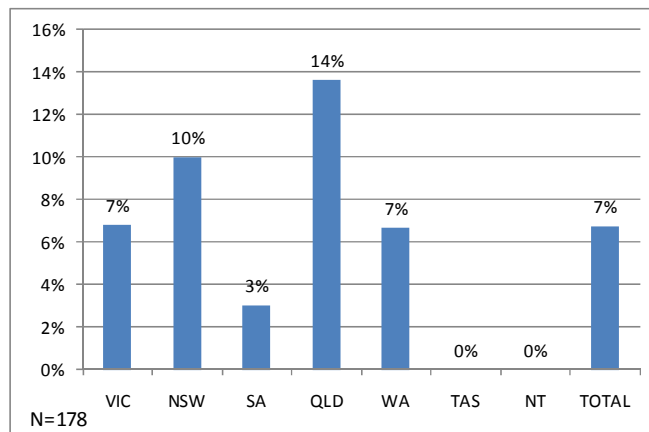


Figure 11: Percentage of growers unsatisfied with the quality of their workforce

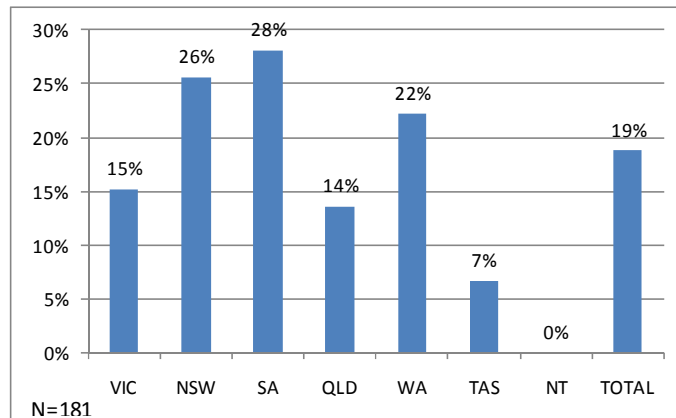


Figure 12: Growers who had heard or the scheme and were unhappy with their existing labour supply

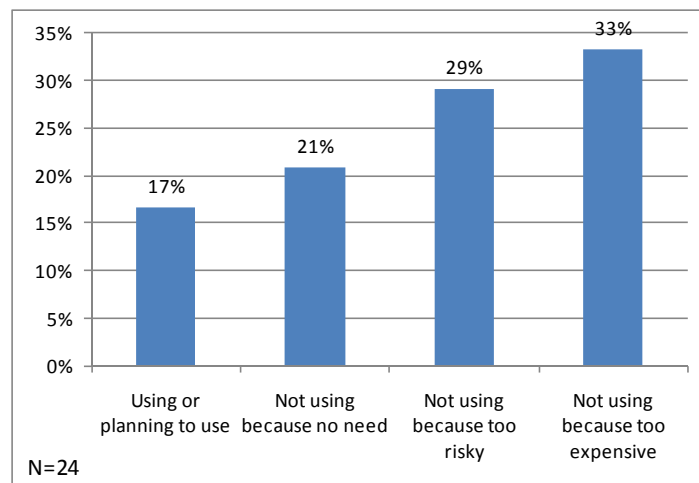
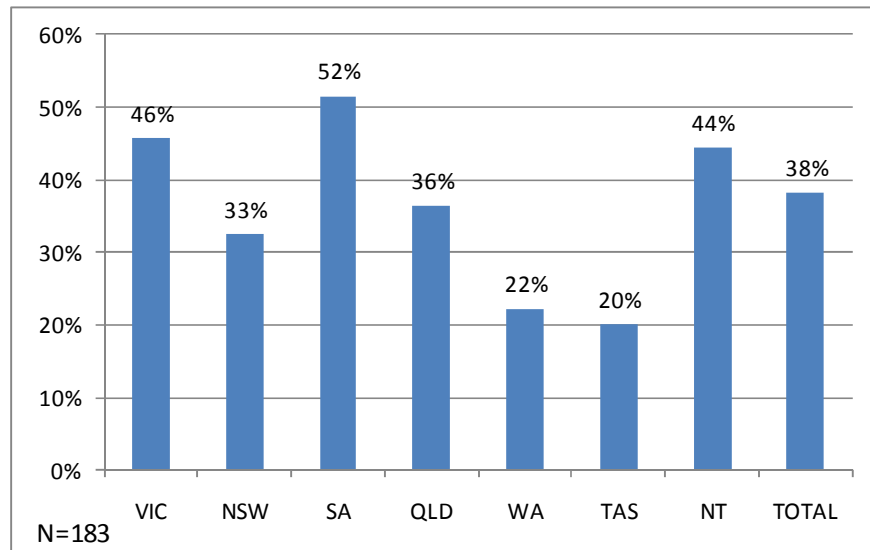


Figure 13: Percentage of growers who use a contractor at least sometimes



5. Discussion

This section relates the grower survey results presented in the previous section to the hypotheses presented in Section 3, which are used as section headings below, this time as questions. The discussion also draws on the interviews of AEs and participating growers, as well as other findings from government reports and the secondary literature.

5A. Is there a labour shortage?

(5A.1) Is there a long-term labour shortage or labour quality problem?

Prior to the implementation of the pilot scheme, there was substantial anecdotal reporting of labour shortages in the horticulture industry – an industry heavily dependent on manual labour, particularly in peak seasons such as harvests (Colman 2004; Shine 2005; Stapleton 2008). It has been claimed that “continuing labour shortages perpetuate the participation of illegal workers” (Economic Development Committee 2004, p.46; see also Bowen 2010 and Hughes 2004). The National Farmers Federation (NFF) conducted research, collecting a variety of data including official figures, member surveys and report findings in attempt to quantify harvest needs (NFF 2008a). The NFF has estimated a “chronic nationwide annual shortfall of 22,000

seasonal workers in horticulture” (Burke 2008), with the industry valuing the produce wasted due to labour shortage at \$700 million.

Mares et al. (2006) carried out a survey of 176 growers to evaluate the extent of labour shortages in the horticultural region stretching along the Murray River in northwest Victoria. The survey provided evidence of a serious labour shortage. Half of the respondents said securing adequate labour was either “difficult” or “impossible”. Another indication of the difficulty in securing adequate seasonal workers was revealed in the growers’ confession to employing illegal immigrants. More than one in four growers (28 percent) admitted that they had to employ such workers “sometimes”, “often” or “always”.

The Parliament Senate Committee (2006) considered the evidence for a labour shortage or future labour shortage in horticulture during the inquiry to the PSWPS. The Committee concluded that a widespread labour shortage in horticulture “is not supported by consistent evidence”. In the Committee’s view, “The difficulties growers [had] sourcing labour...[did] not pose a serious threat to the economic viability of the horticultural sector” (Section 2.72). The Committee concluded, “That labour demand was being met, more or less, by a growing pool of backpackers taking advantage of relaxed visa requirements under the Working Holiday Makers Scheme”(Section 2.72).¹²

The growers’ survey undertaken for this study fills the empirical gap which the Senate Committee noted. It confirms that there is now no widespread labour shortage. 93 percent of the growers interviewed said they do not face any difficulty sourcing labour (Figure 11). Out of the growers who had heard of the pilot scheme, 70 percent said the main reason they did not participate is because they did not need it. That is, they are satisfied with their current labour supply (Figure 7).

The horticultural sector is certainly increasingly reliant on foreign labour. 181 out of the 183 growers in our survey indicated that they employed foreign labour (the other two were non-respondents). Australia Bureau of Statistics Labour Force Survey data indicates a significant 46 percent reduction in the Australian resident workforce in

¹² Interviews on a 2010 ABC Background Briefing also casts doubt on the labour shortage proposition. See <http://www.abc.net.au/radionational/programs/backgroundbriefing/bitter-harvest/3050520>

horticulture from 2003 to 2009 (TNS Social Research 2010). Working Holiday Makers (“backpackers”) are now considered the backbone of the harvest labour supply. According to one estimate, they constitute 38 percent of total seasonal workers (National Farmers’ Federation 2008b). The figure may in fact be higher. In our interviews with growers, 73 percent of the growers indicated that they mainly employed backpackers (Figure 9).

There are two Working Holiday Maker (WHM) programs, visa categories 417 and 462. The number in the two categories has grown rapidly, as Table 3 shows. In 2006, the program was changed to allow WHM visas to be extended by another year after 3 months of regional work (see Appendix 2). By 2010, there were some 25,000 backpackers applying for a second visa. 90 percent of them, some 22,000, indicated as their basis for visa extension that they had engaged in agriculture (DIAC 2011d).

Two evaluations of the WHM program were carried out last decade: Tan et al. (2009) and Harding and Webster (2002). They make for an interesting comparison. There were 134,388 WHM arrivals in 2007-08 up from 78, 642 in 2001-02. The number who reported they were working fell from 85 to 69 percent, but the percentage of those working who worked in fruitpicking rose from 16 percent to 20 percent. Most strikingly, some 40 percent reported in 2007-08 that they worked on a farm. There is no equivalent question for 2000, but looking at the occupations, it is hard to believe that the figure would be in excess of 20 percent.¹³ Thus, roughly speaking, we estimate that the number of working backpackers has gone up 40 percent, and the number working on a farm might have roughly tripled (from 13,400 to 37,100).

¹³ In the 2008 survey, 26 percent report working as farm hands, including fruit pickers, and 25 per cent as other. In the 2000 survey 16 percent report working as fruit pickers and at most some 7 percent fall into an “other” category.

Table 3: Total Working Holiday and Work and Holiday Visa Grants

Visa Category	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Working Holiday (s417)	95,336	105,824	113,935	134,612	154,148	187,696	175,739	185,480
Work & Holiday (s462)	3	257	751	1,810	3,426	6,407	7,422	7,442
Total Visas	95,339	106,081	114,686	136,422	157,574	194,103	183,161	192,922
Percentage change	6.4%	11%	8%	19%	15.5%	23%	-5.5%	5.3%

Source: DIAC 2007; DIAC 2010; DIAC 2011d. See Appendix 2 for explanations of the Working Holiday and Work and Holiday Visas.

The interviews revealed that the types of workers relied on varies across states. In general, international students (subclass 572, 573 and 574), who are allowed to work up to 20 hours a week, are known to provide an important source of labour (Ball 2010). All the Tasmanian growers interviewed relied on students to fill seasonal labour needs. By contrast, growers in the Northern Territory mostly relied on locals to fill seasonal labour needs.

There is also evidence that growers continue to hire overseas workers illegally. The undocumented workforce consists of unauthorised residents (primarily from Pacific Islands, South-East Asian and Chinese backgrounds), Australians working while receiving government benefits and foreign travellers working without authorisation (Mare 2005). The use of undocumented labour is widely acknowledged, although unquantified. All the AEs interviewed suggested the use of undocumented workers is one of the major constraints to growers' demanding PSWPS workers. Only 12 percent of the 88 percent of growers who responded to this question were prepared to say that there was no use of undocumented labour. One identified problem was contractors paying under-award wages to workers, unbeknownst to growers. AEs emphasised that growers were not to blame. Rather, the use of undocumented workers reflects the nature of the horticulture industry. Pressure on prices, acceptance of low standards, and the ease of sourcing such workers, particularly through contractors, have led to the use of undocumented workers becoming a norm.

The interviews suggested that the quality of the current labour supply for horticulture is a bigger problem than absolute shortages, though again not as big a problem as it is often portrayed to be. 19 percent responded that they were unhappy with the quality of their workforce (Figure 11). Only two growers said that they had a shortage but did not have quality problems. In other words, virtually all potential demand (34 out of 36

growers in our survey or 95 percent) for the PSWPS comes from growers who identify a quality problem.

(5A.2) Did the Global Financial Crisis (GFC) increase aggregate labour supply in horticulture and reduce aggregate labour demand?

A comparison between Australia and New Zealand suggests that the GFC cannot explain the persistence of the low take-up for the PSWPS. New Zealand's economy was hit harder by the GFC, which experienced a deep five-quarter long recession. In comparison, the Australian economy proved to be one of the most resilient in the developed world, experiencing only a moderate slowdown in growth with a single quarter of decline in real GDP (World Trade Organisation 2011). Despite New Zealand's economy faring worse, the demand for RSE workers remained high: over 6,000 RSE workers were consistently recruited annually. Even with Australia's economic recovery in 2009-2010, only an additional 11 Pacific seasonal workers were recruited.

New Zealand also experienced, proportionately, a greater increase in the availability of domestic workers relative to Australia. The economic downturn saw unemployment rates in Australia rise from a low of 4.3 percent in June 2008, to 5.5 percent in December 2009 (Australian Bureau of Statistics 2008, 2010). Comparatively, New Zealand experienced greater increases, from a low of 3.9 percent in June 2008 to 7.3 percent in December 2009 (Statistics New Zealand 2011).

Feedback from stakeholders indicates that the global financial downturn did increase the number of overseas workers entering Australia, but the long-term upwards trend was probably a more important factor. As Table 3 shows, the number of backpackers has been increasing rapidly since at least 2003-04, with double-digit increases following the relaxation of visa rules in 2006 (as discussed above). There was a particularly large increase in s417 and s462 visas granted in 2008-2009 of 23 percent, which would suggest a role for the GFC. However, the number of visas issued fell in 2009-2010 by 11,000, which brought the growth of the WHM scheme back into line with the trend.¹⁴ This reversion to a trend growth which began well before the GFC suggests that the

¹⁴ Growth post-rule-change but pre-GFC in 2006-07 and 2007-08 combined over pre-rule-change 2004-05 and 2005-06 is higher at 33 percent than growth in post-GFC 2008-09 and 2009-10 over 2006-07 and 2007-08 (28 percent).

growth in WHM visas, though an important part of the explanation for the limited take-up of the PSWPS, is primarily due more to its longer-term increasing popularity, which in turn is due at least in part to the 2006 change in rules, rather than the GFC.

5B. Have reputational factors reduced demand?

Even if there is little aggregate labour shortage, there might still be a demand for Pacific workers. Pacific workers provide a different type of labour than other seasonal workers. They arrive dedicated for the months of work at hand, whereas backpackers are an unreliable, highly mobile labour source. And over time Pacific workers can be trained. As noted earlier, 19 percent of growers consider their current source of labour to be unsatisfactory (Figure 11). Moreover, all the participating growers interviewed felt that PSWPS workers were significantly more reliable and productive than the alternatives. In the words of one, the scheme “has been good and this is due to the fact that efficiencies gained from the workers returning back have been huge [and] the willingness of the individual to work.”

Thus, while the lack of an aggregate labour shortage and the widespread satisfaction with labour quality must help explain the poor take-up of the PSWPS, one also has to ask why, given the positive experience of those farmers who have used the scheme, it has not expanded more quickly. In this section, we turn to the possible role of reputational factors.

(5B.1) Does the scheme in general have a poor reputation?

The interviews found that almost half of the growers (49 percent) had never heard of the PSWPS (Figure 6). (Two growers interviewed thought the scheme was no longer running.) Of the growers who had heard of the PSWPS, 27 percent believed the PSWPS had a good reputation, while 23 percent believed the scheme had a poor reputation (Figure 8). Half the growers, however, were unaware of its reputation, indicating a lack of information. Furthermore, 16 percent of the growers aware of the scheme did not participate because they perceived it as too risky (Figure 7).

Growers in general did not know anyone who had participated, so they were unsure if the scheme was viable or beneficial. Most had no interest to seek out information on the scheme. Given their often tight financial situation, growers were not prepared to

consider trying something new. Typical comments made were: “I can’t trust it would work.”, “I’m not sure of the benefits.” and “I’d need to be sure of the benefits before taking such a risk.”

While various risks were cited (and summarized in the Section 4), it is also possible that the pilot nature of the PSWPS was itself a risk. Growers would be reluctant to incur upfront costs such as the provision of accommodation (even though they can recoup the costs from workers) if they were not sure the scheme would continue.

Thus we have strong evidence that a poor reputation is indeed suppressing demand for Pacific seasonal labour. Half of the growers have simply not heard of the scheme at all, a significant minority of growers perceive the scheme to be risky, and a majority of those aware of it either lack the information to make a judgement about it or have a negative attitude to the scheme.

(5B.2) Is the forced use of Approved Employers (labour hire companies) perceived as a risk?

In late 2009 more flexibility was given to the PSWPS by allowing growers and grower cooperatives to become AEs, as long as the selection criteria are met. Now 6 out of a total of 13 AEs are growers and grower cooperatives. Generally, labour hire companies were not perceived as a risk. In fact, many growers considered the use of contractors to be common practice; 38 percent of the growers interviewed use contractors often or sometimes (Figure 13). Growers use contractors for the greater ease in sourcing and employing workers. The use of contractors is more common in some regions than others. It was less common for growers on the harvest trail or near the metropolitan area to use contractors, because sourcing workers themselves is easy. One grower said he had “about twenty people walking the streets per day looking for work.” Remote farms, where backpackers or other labour sources are less abundant, rely on contractors to provide labour. Out of the growers who had heard of the PSWPS, only two (1 percent) said they would not use the scheme because of the requirement to use labour hire companies.

In general, therefore, it seems unlikely that the initial required use of labour hire companies was a major cause of the low take-up of the PSWPS. And, if it was, it no longer is.

(5B.3) Do Pacific Islanders have a poor reputation?

All of the growers interviewed use foreigners to fill seasonal jobs. This demonstrates openness to employ workers of different nationalities. Only one grower expressed reservations over Pacific workers, and a preference for hiring Asian workers.

5C. Are the costs of the scheme too high?

(5C.1) Have high costs and excessive red tape made the scheme uncompetitive?

The costs involved in employing PSWPS workers are borne by the AEs. According to the labour hire companies interviewed, the rate charged to growers for PSWPS workers ranges from \$22-\$26 per hour. The PSWPS workers get paid roughly \$21.50 per hour on a piece rate and \$18.75 when paid by the hour. PSWPS workers paid by the bin (piece rate) earn more as they are rewarded for their higher productivity.

AEs reported that PSWPS workers are more expensive to employ relative to alternative labour sources. However, most of the labour hire companies contracted PSWPS workers out at the same rate as alternative workers, shouldering the additional costs (of international and internal travel). Two AEs said they make no profit from participation.

Of the growers interviewed who were aware of the scheme, but who did not participate 16 said it was because it was too expensive (Figure 8). This number includes all 5 non-participating growers who indicated that they had looked into the scheme: they all decided not to participate because their conclusion was that it was too expensive.

The structure of the PSWPS is very similar to New Zealand's RSE and the requirements for employers are the same. However, the AEs complained that initially the scheme seemed straightforward, but once operations began it became onerous, with more work required than anticipated.

Although the AEs could not quantify the costs associated with the scheme's regulations, of the 8 AEs interviewed, 7 said the red tape is too cumbersome and costly. Six of the AEs felt the level of red tape and bureaucracy is the key area that needs improvement for the scheme to be financially viable and more successful. The most prominent complaint was repetitive paperwork, reporting and monitoring. For example, one AE said, "The problem is repetition; every single worker needs to go through the same process, same market testing, same justification and compliance, all the same paperwork with every application." Not all were negative. One commented "The requirements are not above what I'd normally do." But the majority of the AEs (6 out of 8) felt the paperwork and reporting to the government was time wasting. One AE commented, "The paperwork is meaningless because it's all self-reporting." Another said, "Dogooders in the government insisting on pedantic non-issue details should be told where to get off. Less interference by bureaucrats would be better." Nearly all the AEs suggested the scheme could be improved by streamlining processes.

Of the AEs interviewed, 5 felt that the government did not understand business nor the necessity of timeliness. One AE suffered huge costs due to delays on the government side. As a result, the costs of flights increased astronomically and the PSWPS workers did not arrive in time for the season. Three AEs complained they could not get the number of workers requested due to delays.

Half of the AEs said that the process to become an AE was unnecessary, with much irrelevant paperwork. It took one grower 6 months to become an AE. Set-up costs are considered to be substantial.

AEs have responsibility for providing pastoral care. For labour hire companies which provide contracting services across different states this is unrealistic

In summary, wage levels themselves may not be a constraint. The fact that four of the labour hire companies charge no premium for PSWPS workers and yet have experienced little demand for their labour suggests this. However, the scheme has a reputation among a significant minority of growers for being expensive. And excessive red tape is a major source of unhappiness among AEs.

(5C.2) Are coordination costs high due to fragmentation in the horticulture industry?

Despite speculation to the contrary, coordination costs due to fragmentation do not appear to be a major issue. The labour hire companies generally require growers to provide enough work to ensure PSWPS workers remain on one farm during their entire stay. The majority of RSE workers in New Zealand also remain on one farm for their entire stay. This requirement excludes only a small number of growers, and only a small number of those surveyed indicated that they would not be able to meet the minimum work requirement or that their season is too short. The reduction of the minimum time-in-country PSWPS requirement from 6 to 4 months should further reduce coordination costs.

5D. Is the PSWPS attractive enough to Pacific workers?

(5D.1) Do tax rules and the high cost of remittances make the scheme uncompetitive for PSWPS workers?

Even with unfavourable tax rules and high remittance fees, the scheme remains financially lucrative for Pacific Islanders. There is much anecdotal reporting of the benefits of participation in the PSWPS for Pacific Islanders. The vast number of Pacific Islanders waiting for the opportunity to work under the scheme demonstrates the attractiveness of the scheme for Islanders (Tupoumalohi 2011). For example, more than 5,000 Tongans have registered for the work-ready pool (Kolotiaf 2011). Papua New Guinea is reported to have a work-ready pool of over 500 people (Yamin 2011).

The potential benefits can be estimated by calculating the expenses and earnings shown in Tables 4, 5, and 6 below. Worker expenses are based on a World Bank review of the experiences of the first group of 50 Tongan workers under the PSWPS (Malaulau 2010). The earnings are calculated using the minimum wage for casuals determined by the 2010 Horticulture Award (though note that the wage rate is negotiable and will vary depending on the contract arrangement).

Table 4: Fixed one-off expenses

Expense	Estimated Amount (\$AUD)
50% of return airfare to Australia	650
Visa fees	265
Medical fees	50 (max. 76)
Police checks	10
TOTAL	950

Source: Adapted from Malalau (2010).

Note: This table excludes the cost of domestic travel within their home country and the cost of a passport, which is \$54 AUD for five years and \$115.00 for ten years.

Table 5: Living Expenses (per week)

Expense	Estimated Amount (\$AUD)
Accommodation	60
Food	50
Daily transport to and from farm	20
Health insurance	34
TOTAL	164

Source: Malalau (2010).

Table 6: Potential PSWPS remittances (at the old non-resident tax rate)

Length of stay	PSWPS net remittances (\$AUD)
12 weeks	1,596
16 weeks	2,376
20 weeks	3,156
24 weeks	5,684
27 weeks	6,488

Notes: Calculated at the hourly wage rate \$19.39, assuming a 30 hour week. The tax rate is the old non-resident rate of 29% for less than 24 weeks, and 13% for 24 weeks or more. The remittance fee or cost is estimated at 21.7%, based on DEEWR (2010). Net savings = hourly wage*hours – tax – fixed costs – living expenses. Remittances=net savings – cost of remittances

Table 6 estimates net remittances under the PSWPS under these assumptions. Consistent with this, though suggesting that living costs are perhaps somewhat underestimated by Table 5, Gibson and McKenzie (2011) estimate, based on their survey, that the first Tongan workers remitted back \$5,000 over 6 months. The net benefit (subtracting income foregone from employment and contributions to household farming due to being away from home) is \$2,600. Annual household income (over a six month period) is \$5,900, so the gain is about 40 percent per sending *household* not worker.

Evidently, PSWPS is very profitable for Pacific workers and their families. As Tonga is one of the most prosperous Pacific islands, the scheme would be even more profitable for workers from islands other than Tonga. And tax rates have now been halved (see Section 3.2).

6. Conclusion

Take-up under the Pacific Seasonal Worker Pilot Scheme has been very low. After more than three and a half years, about 1,100 workers have been employed under the scheme, against a target up to June 2012 of 2,500. By contrast, some 7,000 Pacific workers travel to New Zealand each year under its seasonal work scheme. And we estimate that some 37,000 backpackers work every year on Australia farms.

A large number of explanations have been put forward as to why PSWPS take-up has been so low, but this study represents the first systematic attempt to sift through them. The results of the study point to multiple factors. It is not possible to quantify their relative importance, but three stand out.

One key factor which emerges from this study is that there is little by way of an aggregate labour shortage or quality problems driving growers to look for alternatives. This is the reason given by the great majority (70 percent) of those growers which were aware of the PSWPS but not using it. Only 7 percent of growers indicate that they have a problem finding sufficient seasonal workers. A larger percentage is unhappy with the quality of their current labour supply, but even this proportion is only 19 percent, and only 20 percent are unhappy with either labour quality or quantity.

A second key factor is a lack of information about the scheme. Half the growers surveyed had not heard of it, and 50 percent of those who had heard of it were not well informed about it.

A third important factor is the significant level of risk and cost perceived to be associated with the scheme. About 16 percent of growers who had heard of PSWPS, gave their reason for non-participation as “too risky”, and another 9 percent said that it was too costly. The perception of high risk may be partly because most growers don’t know of others who have used the scheme. It might also be because they were not at the time sure that the pilot would be sustained. The financial costs involved reduce the

attractiveness of the scheme to some growers and labour hire companies, including those growers who had looked into the details. The compliance costs associated with the scheme were almost universally perceived to be high.

In terms of our hypotheses, A1 (there is no labour shortage or labour quality problem in the horticultural sector), B1 (the scheme has a poor reputation – including among many no reputation at all) and C1 (expensive conditions and excessive red tape make the scheme uncompetitive) all receive strong support from the evidence.

Other hypotheses receive less or no support. The GFC appears to have played a limited role. It is unclear if the forced use of labour hire companies was an issue in the past, but it no longer is (as that restriction has been dropped). Pacific islanders do not have a poor reputation, and coordination costs are not a major issue. Finally, all the explanations for limited take-up are to be found on the demand side rather than the supply side. There are plenty of Pacific islanders willing to come to Australia as seasonal workers.

Further lessons could be gained from a closer analysis with New Zealand. A proper treatment would require a separate paper, covering both the two schemes and the two industries and countries. There are many differences between the two industries. The horticultural industry in New Zealand is more uniform, and there are many more pre-existing links with Pacific communities. The two schemes are similar, though the New Zealand one has lower compliance costs. A more detailed comparison is needed, but, just to give one example, there is no requirement in New Zealand to develop and submit contingency plans in case the initial employment plans go awry. Some claim that New Zealand prepared the way for its RSE by a crackdown on illegal labour. According to Ball, “In order to create labour demand [for the RSE] from the outset, the New Zealand government conducted immigration raids to deport undocumented workers” (2009, p.116). New Zealand Masters Contractors Inc was established in March 2008, as part of the RSE introduction, to improve quality and compliance, including with employment laws. NZMCI is an industry body, but it was established with and continues to receive government support (Jones 2008). It is seen as having played an important role in increasing demand for Pacific workers both directly through recruitment and indirectly by helping the industry shift away from illegal practices. According to NFF (2008c), it

rapidly or even “overnight” “‘cleaned up’ the contracting and broader components of the industry” (p.5).

Another big difference may be with regard to seasonal workers. New Zealand attracts less than a quarter of the number of backpackers which Australia attracts. And fewer of them work as fruit-pickers. Only 6 percent in a 2004 survey reported working as fruitpickers, with 20 percent working in agriculture in total (NZ Department of Labour 2004). Compare this to the 40 percent of backpackers in Australia who report to have worked on a farm.¹⁵

In considering what the policy response to these findings should be, it is important to avoid two extreme positions. One would be to point to the recent pick up in demand for the PSWPS and to argue that it is “problem solved”, and that no further reforms are needed. Clearly, recent reforms to make the PSWPS more employer friendly have helped. But there is a long way to go, as is clear both from the still very low numbers involved, and the stark nature of the findings in the survey. If only 20 percent of growers continue to be unhappy with either the quantity or the quality of their current labour supply, the potential of the scheme is clearly limited. Moreover, of that potential demand pool, only 17 percent of the surveyed growers were either already participating or intending to participate. The other 83 percent were not: either because they still didn’t perceive the need (the situation wasn’t desperate enough) – 21 percent; or because of fears about risk (29 percent) and expense (33 percent) (Figure 12).

The other mistake, however, would be to draw the opposite conclusion that PSWPS should be scrapped. There are two sources for hope in relation to PSWPS which emerge from this study: first, the 20 percent of farmers unhappy with the quality or quantity of their current labour; and second, the generally very positive experience of the small number of growers which have actually participated in PSWPS.

For the Pacific seasonal worker program to thrive, the horticultural industry needs to be shifted from its current reliance on an unregulated, less productive labour force to a

¹⁵ NZ also has introduced in around 2007 the possibility of an extension to a working holiday visa, but in its case the reward for “three months or more of seasonal work in the horticulture and viticulture industries during your working holiday” is only a three month extension, not a 12 month extension as in Australia. See <http://www.prolawine.co.nz/nz/working-holiday-visa.html>

reliance on a regulated, more productive labour force. Costs may rise, but no growers will be forced to shift so, if they do, it will be because it is worth it for them, because of the productivity gains. This shift in equilibrium will require four things.

First of all, the government needs to get behind the scheme and promote it actively. At the time of our survey, only 14 percent of farmers had a positive view of it. Industry bodies need to also get on board, but, unless the government gives the scheme greater backing, it will be impossible to shift the industry from its current equilibrium to a new one. The Government has so far prioritised proving that the scheme can work rather than delivering large numbers. That has to change now. This means first of all simply raising awareness about the PSWPS. It also means publicizing success stories, and making it clear to growers that the scheme is here to stay. The government is engaged in some of these efforts, but one rarely hears Ministers endorsing let alone promoting the scheme.

Second, the government needs to streamline PSWPS processes and reduce costs. There is a huge disconnect between the amount of supervision of this scheme and of others sources of horticultural labour. In relation to the PSWPS, the Government needs to step back, and, as it does in other areas of policy, rely on random rather than 100 percent checks. Documentation requirements should also be reduced, including, for example, the requirement for contingency plans in case the original work plans are derailed. Monthly reporting is excessive. The labour market testing requirement also appears redundant, given that *every* grower employs foreign labour: Pacific workers are therefore competing with other foreign workers not with Australians for these jobs. To reduce costs, more travel costs could be shifted to the workers, especially with the high Australian dollar, which makes working in Australia much more attractive compared to working in New Zealand.

Third, the issue of the booming popularity of the working holiday maker visas needs to be confronted. It seems clear that around the middle of the last decade the horticultural sector did face a worker shortage. At that stage, the Australian Government was unwilling to introduce a Pacific seasonal worker program. But it wanted to respond to industry needs, and did so by relaxing the rules around the working holiday visa categories, specifically to benefit the horticultural sector. In so doing, it undermined the

prospects for success for the PSWPS when it was eventually introduced. The Australian Government could remove the special treatment given to the horticultural sector under the two working holiday visa programs. Or it could make these visa categories open to Pacific islanders. The second option is inconceivable. The first will be resisted by industry. However, there is no reason the horticultural sector should have special status within the working holiday visa category, at least not if another method can be found to solve the labour problems which the sector faces. Ultimately, this is an issue of policy coherence. Without addressing it, the future of the Pacific seasonal worker program is very uncertain.

Fourth, there needs to be a crackdown on undocumented labour. The fact that only 12 percent of growers who responded to this problem were prepared to deny that undocumented labour was used suggests that its use is widespread.

None of these reforms will be easy. Some streamlining can be expected now that the scheme has been made permanent, but it will not be easy to rein in the working holiday visa scheme, nor to crack down on illegal practices in the horticultural sector.

This leads to the final point. Given the experience to date, it would clearly be premature to regard seasonal horticultural work as the answer to the problem of promoting Pacific migration to Australia. We need to do more to try to make the seasonal worker program work, but we clearly need to look at other sectors as well. The Australian Government announced in December 2011 a new pilot seasonal scheme in relation to tourism in Broome, WA for East Timorese. But seasonal work does not suit all, or indeed most industries. Another area where there is huge migration potential is in relation to aged care (Callister et al. 2009). And there is always much to be said for letting the market decide rather than have the government pick winners. From this perspective, Australia needs to take notice of New Zealand's use of permanent migration to promote labour mobility from the Pacific. The lottery- and quota-based Pacific permanent migration schemes which New Zealand uses have also been extensively and positively evaluated (Appleyard & Stahl 2007). Perhaps it is time for Australia to look at these as well.

7. Appendices

Appendix 1. Interviews

Questionnaire for growers

1. Have you heard of the Pacific Seasonal Worker Pilot Scheme?

If the grower answers 'no' to question 1:

2. Do you have difficulty finding sufficient seasonal workers?
3. Are you satisfied with the quality of the workers you employ?
4. What type of workers do you mainly employ i.e. backpackers, locals, grey nomads? (the competing labour sources)
5. Do you employ foreigners?
6. To what extent do you think growers use undocumented labour? Are undocumented workers present in your region?
7. Do you use a contractor or do you employ workers yourself?
8. What type of horticultural enterprise do you have, i.e. size, type of fruit/vegetable?

If the grower answers 'yes' to question 1:

2. Did you use the scheme?

If the grower answers 'no' to question 2:

3. Why did you decide not to use the scheme?
4. Do you have difficulty finding seasonal workers?
5. Are you satisfied with the quality of the workers you employ?
6. What type of workers do you mainly employ i.e. backpackers, locals, grey nomads?
7. Do you employ foreigners?
8. To what extent do you think growers use undocumented labour?
9. Do you use a contractor or do you employ workers yourself?
10. What reputation do you think the scheme has?
11. Do you think Pacific Islanders are good workers?

12. Was the scheme clearly communicated to you, are you aware of the design and requirements?

13. What type of horticultural enterprise do you have, i.e. size, type of fruit/vegetable

If the grower answers 'yes' to question 2:

2. Why did you decide to use the scheme?

3. How many PSWPS workers have you used?

4. What is your experience of the scheme?

5. What is the price difference between PSWPS workers and other seasonal workers?

6. What is the wage for PSWPS worker?

7. What other costs do you experience with PSWPS workers?

8. What do you think are the main constraints to greater grower demand for PSWPS workers?

9. To what extent do you think growers use undocumented labour?

10. What type of horticultural enterprise do you have, i.e. size, type of fruit/vegetable?

Questionnaire for Approved Employers

1. Why did you decide to participate in the PSWPS?

2. How many growers do you supply PSWPS workers to?

3. How many PSWPS have you employed per season?

4. Do you think the scheme is financially attractive for AEs?

5. What are the set up costs for AEs?

6. How do you think growers perceive Labour Hire Companies?

7. Do you think there is a seasonal labour shortage in horticulture?

8. What are the competing labour sources?

9. What extent do undocumented seasonal workers exist in the horticulture industry?

10. Do you think the global financial crisis affected the scheme?

11. What is the difference in price between PSWPS workers and other seasonal workers?
12. What are the additional costs for AEs to employ PSWPS workers?
13. Are there coordination costs for you?
14. How many farms do PSWPS workers work on?
15. How do you think the redtape affects the scheme?
16. What do you think are the main constraints to greater grower demand for PSWPS workers?
17. What do you perceive the reputation of the scheme, Labour Hire Companies and Pacific workers to be amongst growers?
18. How do you think the scheme and its policy could be improved?

Appendix 2. The Working Holiday Makers and the Work and Holiday Visa Schemes

The Working Holiday Makers (WHM) program is a cultural exchange program designed to deliver both social and economic benefits to Australia and provide short-term casual workers. The program enables young people, colloquially known as backpackers aged 18 to 30 years, without dependent children, to work while they travel (DIAC 2009). There are two visas available. The Working Holiday visa (subclass 417) is for travelers who hold passports from Belgium, Canada, Republic of Cyprus, Denmark, Estonia, Finland, France, Germany, Hong Kong, Republic of Ireland, Italy, Japan, Republic of Korea, Malta, Netherlands, Norway, Sweden, Taiwan and the UK. The Work and Holiday visa (subclass 462) is designed for travelers who hold passports from Bangladesh, Chile, Indonesia, Iran, Malaysia, Thailand, Turkey and the USA. 462 visas are typically more restrictive (for example, they typically require tertiary education, and a letter of support from government). Neither visa includes people from the Pacific Islands, though in November 2011, Australia agreed to issue 100 462-visas to PNG citizens. The working holiday visa allows the holder to: enter Australia within 12 months of grant; stay up to 12 months; leave and re-enter Australia any number of times while the visa is valid; work in Australia for up to 6 months with each employer; and study for up to 4 months. Changes to the visas in 2006 allowed extended periods of work in seasonal placements. Backpackers who have worked in horticulture or other specified industries (agriculture, mining, construction) for a minimum of three months are now eligible to apply for a second visa, granting them a further years stay in Australia (Australia Tourism Export Council 2006).

8. References

Adams, A 2006, 'Remittances, poverty, and investment in Guatemala', in Ç Özden & M Schiff (ed.), *International Migration, Remittances, and the Brain Drain*, Palgrave Macmillan, New York.

Adams, R & Page, J 2004, *Do international migration and remittances reduce poverty in developing countries?*, World Bank, Washington DC.

Amin, MaM, A 2005, *Does temporary migration have to be permanent?*, World Bank, Washington D.C.

Australia Tourism Export Council 2006, *Backpackers able to work longer under visa changes*, viewed 22 May 2011, <http://www.atec.net.au/whm_announcement.pdf>.

Stahl, Charles and Reginald Appleyard (2007) 'Migration and Development in the Pacific Islands: Lessons from the New Zealand Experience', AusAID, <<http://www.ausaid.gov.au/publications/pdf/migration.pdf>>

Australian and New Zealand Government 2010, 'Trends in remittance fees and charges', paper presented to Pacific Islands Forum Economic Ministers' Meeting, Niue, 26-29 October 2010.

Australian Bureau of Statistics 2008, *Labour Force, Australia, Jul 2008*, viewed 14 April 2011 <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6202.0Main+Features1Jul%202008>>.

____ 2010, *Labour Force, Australia, Dec 2009*, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6202.0Main+Features1Dec%202009>>.

Australian National Audit Office 2005, *Australian Taxation Office tax file number integrity*, Australian National Audit Office.

Ball, R 2010, 'Australia's Pacific Seasonal Worker Pilot Scheme and its interface with the Australian horticultural labour market: is it time to refine the policy?', *Pacific Economic Bulletin*, vol. 25, no. 1, pp. 114-30.

Ball, R, Beacroft, L and Lindley, J 2011 'Australia's Pacific Seasonal Worker Pilot Scheme: managing vulnerabilities to exploitation,' *Trends and issues in crime and criminal justice*, No. 432, November.

Balli, F & Baili, H 2011, 'Income and consumption smoothing and welfare gains across pacific island countries: The role of remittances and foreign aid', *Economic Modelling*, vol. 28, no. 4, pp. 1642-9.

Bank, W 2006 *Global economic prospects: economic implications of remittances and migration*, World Bank, Washington D.C.

Borjas, G 1994, 'The economics of immigration', *Journal of Economic Literature*, vol. 32, no. 4, pp. 1667-717.

Bowen, C 2010, 'Compliance officers uncover 18 illegal workers in WA and Victoria', *Minister for Immigration and Citizenship*, <<http://www.minister.immi.gov.au/media/media-releases/2010/ce10034.htm>>.

Burke, C (Vice President, NFF) 2008 quoted in "Pacific Islanders Work Scheme not about cheap labour: Burke", *Sydney Morning Herald*, 17 August, <<http://www.theage.com.au/national/pacific-islanders-work-scheme-not-about-cheap-labour-burke-20080817-3wz1.html>>

Callick, R 2010, 'Pacific scheme withers on the vine', *The Australian*, 2 March.

Callister, P, Badkar, J and Williams, J 2009 'The future supply of caregivers for the elderly: should Australia and New Zealand look to the Pacific,' *Pacific Economic Bulletin*, vol. 24, no. 3, 162-172.

Clemens, M, Montenegro, C & Pritchett, L 2008, *The place premium: wage differences for identical workers accross the U.S. border*, The Center for Global Development, Washington DC.

Colman, EaK, G 2004, 'Guest workers prop up economy', *The Weekend Australian*, 5-6 March, p. 1.

Cox-Edwards, A & Manuelita Ureta, M 2003, 'International migration, remittances, and schooling: evidence from El Salvador', *Journal of Development Economics*, vol. 72, no. 2, pp. 429-61.

DAFF (Department of Agriculture, Forestry and Fisheries) 2012, *Horticulture Fact Sheet* <<http://www.daff.gov.au/agriculture-food/food/publications/hort-fact-sheet>>

DEEWR (Department of Education, Employment and Workplace Relations) 2010, 'Remittances: sending money back home', viewed 20 December 2010, <<http://www.deewr.gov.au/Employment/Programs/PSWPS/Pages/Remittances.aspx>>

____ 2010a, *Horticulture Award 2010*, Department of Education, Employment and Workplace Relations, viewed 22 April 2011, <https://extranet.deewr.gov.au/ccmsv8/CiLiteKnowledgeDetailsFrameset.htm?KNOWLEDGE_REF=216322&TYPE=X&ID=7115523689687233188889912894&DOCUMENT_REF=323123&DOCUMENT_TITLE=Horticulture%20Award%202010&DOCUMENT_CODE=MA000028>.

____ 2010b, *Important changes to the pilot provides more flexibility*, Department of Education, Employment and Workplace Relations, viewed 15 March 2011, <<http://www.deewr.gov.au/Employment/Programs/PSWPS/Documents/PSWPSFactsheet.pdf>>.

DIAC (Department of Immigration and Citizenship) 2007, *Output 1.1 - Migration and temporary entry*, Department of Immigration and Citizenship, viewed 5 May 2011,

http://www.immi.gov.au/about/reports/annual/2005-06/DIMA_AR/performance/Outcome_1_1.html.

____ 2009, *Population Flows: Immigration Aspects 2006-07*, Department of Immigration and Citizenship, Canberra.

____ 2010, *Total Working Holiday and Work & Holiday visa grants*, Department of Immigration and Citizenship, Canberra.

____ 2011a, 'Factsheet 17: New Zealanders in Australia', viewed 15 January 2011, <http://www.immi.gov.au/media/fact-sheets/17nz.htm>.

____ 2011b, 'Fact sheet 50: Overseas students in Australia', viewed 15 January 2011, <http://www.immi.gov.au/media/fact-sheets/50students.htm#h>.

____ 2011c, *The Pacific Seasonal Worker Pilot Scheme: Fact sheet*, Department of Immigration and Citizenship, viewed 10 May 2011 http://www.immi.gov.au/skilled/pacific-seasonal-worker/_pdf/factsheet-pswps.pdf.

____ 2011d *Working Holiday Maker visa program report*, December 2011, viewed 27 March 2012, <http://www.immi.gov.au/media/statistics/pdf/working-holiday-report-dec11.pdf>

Dustmann, C 2000, *Temporary migration and economic assimilation*

Dustmann, C & Kirchkamp, O 2002, 'The optimal migration duration and activity choice after remigration', *Journal of Development Economics*, vol. 67, no. 2, pp. 351-72.

Economic Development Committee 2004, *Economic contribution of Victoria's culturally diverse population*, Parliament of Victoria, Victoria.

Evalue Research 2010, *Final evaluation report of the Recognised Seasonal employer Policy (2007-2009)*, Department of Labour, Wellington.

Gibson, J & McKenzie, D 2011, 'Australia's Pacific Seasonal Worker Pilot Scheme (PSWPS): development impacts in the first two years', University of Waikato Department of Economics, Working Paper in Economics 09/11, June.

Hamilton, BaW, J 1984, 'Efficiency and distribution implications of global restrictions on labour mobility: calculations and policy implications', *Journal of Development Economics*, vol. 14, no. 1-2, pp. 61-75.

Harding, G & Webster, E 2002 *The Working Holiday Maker Scheme and the Australian labour market*, Melbourne Institute of Applied Economic and Social Research, University of Melbourne.

Haywood-Jones, J 2008 "Labour mobility: an Australian seasonal work visa scheme for Pacific islands labour, Outcomes Report", *Perspectives*, Lowy Institute, June. <http://www.lowyinstitute.org/Publication.asp?pid=833>

Hildebrandt, N & McKenzie, D 2005, *The effects of migration on child health in Mexico*, World Bank Policy Research Working Paper 3573, World Bank, Stanford.

Hooper, D 2011, *The Pacific Seasonal Worker Pilot Scheme*, Branch Manager, Population and Migration Policy, Department of Education, Employment and Workplace Relations, Canberra.

Horticulture Australia Limited 2005, *Ensuring a profitable and sustainable agriculture and food sector in Australia*.

____ 2010, *Industry analysis*, viewed 11 February 2011
<http://www.horticulture.com.au/areas_of_investment/Industry%20Analysis%20Portfolio/Industry_analysis_overview.asp>.

Horticulture NZ (2012) "Industry Statistics"
<<http://www.hortnz.co.nz/Overview/About-Us/Industry-statistics.htm>>

Hughes, GaS, L 2004, 'Outlaw labour, rorts and all', *Sunday Age*, 28 March.

Immigration New Zealand 2011, *Immigration New Zealand statistics*,
<<http://www.immigration.govt.nz/migrant/general/generalinformation/statistics/>>.

IMSEAD Research 2010, *RSE monitoring: key findings from the 2010 employers' survey*, Department of Labour, Wellington.

International Labour Organisation 2011, *Best practices database: The Recognised Seasonal Employers Scheme (RSE), New Zealand*, International Labour Organisation,
<http://www.ilo.org/dyn/migpractice/migmain.showPractice?p_lang=en&p_practice_id=48>.

International Monetary Fund 2005, *World economic outlook 2005: Globalization and external imbalances*, IMF, Washington, DC.

Iregui, A 2003, *Efficiency gains from the elimination of global restrictions on labour mobility*, United Nations.

Jones, S (Associate Immigration Minister, NZ) (2008), "Master contractors Inc. launched to aid RSE scheme", Press Release, 7 March, <http://www.beehive.govt.nz/node/32397>.

Klein, PaV, G 2004, 'Do migration restrictions matter?', paper presented to Econometric Society 2004 North American Winter Meetings no 506.

Koettl, J 2006, *The relative merits of skilled and unskilled migration, temporary and permanent labour migration, and portability of social security benefits*, World Bank, Washington D.C.

Kolotiaf, F 2011, *Work-ready pool in Tonga*, Senior Labour Officer, Ministry of Labour and Commerce and Industries, Nuku'Alofa.

Lopez-Cordova, E 2006, *Globalization, migration and development: the role of Mexican migrant remittances*, Inter-American Development Bank, Washington DC.

Luthria, M 2011, 'Labour mobility for the poor: is it really possible?', *Economic Premise*, vol. 45.

MacDermott, T & Opeskin, B 2010, 'Regulating Pacific seasonal labour in Australia', *Pacific Affairs*, vol. 83, no. 2, pp. pp. 283-305.

Maclellan, N 2008, *Workers for all seasons? Issues from New Zealand's Recognised Seasonal Employer (RSE) program*, Swinburne University of Technology, Institute for Social Research, Hawthorne.

Maclellan, N 2010, *Cover report: Australia fails the Islanders*, viewed 15 December 2010 <http://www.islandsbusiness.com/islands_business/index_dynamic/containerNameToReplace=MiddleMiddle/focusModuleID=18977/overrideSkinName=issueArticle-full.tpl>.

Malaulau, M 2010, 'Pacific Seasonal Worker Pilot Scheme design and implementation features affecting demand', World Bank.

Mare, P 2005, 'Seasonal migrant labour: a boon for Australian country towns?', paper presented to The Second Future of Australia's Country Towns Conference, Bendigo, <<http://www.sisr.net/publications/05mares.pdf>>.

Mares, P 2006, 'Labour shortages in Murray Valley Horticulture: A survey of growers' needs and attitudes', *working paper Swinburne University of Technology, Institute of Social Research*.

Mayer, R 2005, 'Guestworkers and exploitation', *The Review of Politics*, vol. 67, pp. 311-34.

McKenzie, DG, J 2010, *The development impact of a best practice seasonal worker policy*, <<http://ipl.econ.duke.edu/bread/papers/working/286.pdf>>.

Mesnard, A 2004, 'Temporary migration and capital market imperfections', *Oxford Economic Papers*, vol. 56, pp. 242-62.

Millbank, A 2006, 'A seasonal guest-worker program for Australia?', viewed 15 March 2011, <<http://www.aph.gov.au/library/pubs/RB/2005-06/06rb16.htm>>.

NFF (National Farmers' Federation) 2008a, *Labour shortage action plan 2008*.

____ 2008b, *Workforce from abroad employment scheme*

____ 2008c, *Industry Perspectives: New Zealand's Recognized Seasonal Employer Policy*

New Zealand Department of Labour Workforce Group - Immigration Service 2004 *Working Holidaymakers in New Zealand*, Immigration Research Programme, December.

Osili, U 2007, 'Remittances and savings from international migration: theory and evidence using a matched sample', *Journal of Development Economics*, vol. 83, no. 2, pp. 446-65.

Ozden, C & Schiff, M 2006, *International migration, remittances and the brain drain*, World Bank, Washington DC.

Pacific Islands Trade and Investment Commission 2009, *Pacific Seasonal Worker Pilot Scheme*, Department of Education, Employment and Workplace Relations, Sydney.

Parliament of Australia Senate 2006, *The question of labour shortage in horticulture*, Parliament of Australia, viewed 9 May 2011, <http://www.aph.gov.au/senate/committee/eet_ctte/completed_inquiries/2004-07/contract_labour/report/c02.htm>.

Pritchett, L 2006, *Let their people come: breaking the gridlock on global labour mobility*, Center for Global Development, Washington, DC.

_____ 2007, *Bilateral guest worker agreements: a win-win solution for rich countries and poor people in the developing world*.

Ramasamy, S, Krishnan, V, Bedford, R and Bedford, C 2008, 'The Recognised Seasonal Employer policy: seeking the elusive triple wins for development through international migration', *Pacific Economic Bulletin*, vol. 23, no. 3, pp. 171-86.

Rapoport, H & Docquier, F 2005, *The economics of migrants' remittances*, Institute for the Study of Labour, Bonn.

Ratha, D 2003, 'Remittances: An important and stable source of external development finance', in World Bank (ed.), *Global Development Finance 2003: Striving for Stability in Development Finance* World Bank, Washington DC, pp. 157-75.

Rodrik, D 2007, 'Be our guest', *New York Times*. <<http://www.nytimes.com/2007/06/01/opinion/01rodrik.html>>

Ruhs, M 2006, 'The potential of temporary migration programmes in future international migration policy', *International Labour Review*, vol. 145, no. 1-2.

Shine, K 2005, 'Fruit rots on vine as workers pick and choose', *The Weekend Australian*, 5-6 March p. 4.

Stapleton, J 2008, 'Fruit rots on vine for want of seasonal workers', *The Weekend Australian*.

Statistics New Zealand 2011a, *Detailed industry report*, viewed 15 May 2011 <<http://wdmzpub01.stats.govt.nz/wds/TableViewer/tableView.aspx>>.

Tan, Y, Richardson, S, Lester, L, Bai, T & Sun, L 2009, *Evaluation of Australia's Working Holiday Maker program*, National Institute of Labour Studies, Flinders University, Adelaide.

The Connect Group 2010, *Reliable, productive and cost effective Pacific Seasonal Workers: How to build a successful workforce!*, viewed 21 May 2011 <http://www.theconnectgroup.com.au/downloads/growers_info.pdf>.

The World Bank 2006, *Global Economic Prospects: Economic implications of remittances and migration*, The International Bank for Reconstruction and Development, The World Bank, Washington DC.

TNS Social Research 2010, 'Interim evaluation of the Pacific Seasonal Worker Pilot Scheme: executive summary', viewed 22 December 2010, <<http://www.deewr.gov.au/Employment/Programs/PSWPS/Documents/PSWPSEvaluationExecSummary.pdf>>.

Tupoumalohi, S 2011, *1,000 Tongans seeking seasonal work in Australia*, Melbourne, <<http://www.radioaustralia.net.au/pacbeat/stories/201105/s3204895.htm>>.

Winters, A, Walmsley, T, Wang, Z & Grynberg, R 2005, 'Relaxing the restrictions on the temporary movement of natural persons: a simulation analysis', *Journal of Economic Intergration*, vol. 20, no. 4.

World Bank 2006, *At home and away: expanding job opportunities for Pacific Islanders through labour mobility*, The World Bank, Washington D.C.

World Bank 2011 *Discussion Note: Pacific Futures*, July, World Bank Sydney Office, <http://devpolicy.anu.edu.au/pdf/2012/Discussion_Note_Pacific_Futures.pdf>

World Trade Organisation 2011, *Trade policy review: Australia*, World Trade Organisation, Geneva.

Yamin, J 2011, *Work-ready pool in Papua New Guinea*, Director of the Australia/New Zealand Branch, Department of Foreign Affairs and Trade, Port Moresby.

Yang, D 2003, *Essays in development economics*, Harvard University, Cambridge, Massachusetts.

____ 2007, 'Are remittances insurance? Evidence from rainfall shocks in the Philippines', *World Bank Economic Review*, vol. 21, no. 2, pp. 219-48.