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Development through Seasonal Worker Programs

The Case of New Zealand's RSE Program

John Gibson
David McKenzie

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Abstract

Seasonal worker programs are increasingly seen as offering the potential to be part of international development policy. New Zealand's Recognised Seasonal Employer program is one of the first and most prominent of programs designed with this perspective. This paper provides a detailed examination of this policy through the first six seasons. This includes the important role of policy facilitation measures taken by governments and aid agencies. The evolution of the program in terms of worker numbers is discussed, along with new data on the (high) degree of circularity in worker movements, and new data on (very low) worker overstay rates. There appears to have been little displacement of New Zealand workers, and new data show Recognised Seasonal Employer workers to be more productive than local labor and that workers appear to gain productivity as they return for subsequent seasons. The program has also benefitted the migrants participating in the program, with increases in per capita incomes, expenditure, savings, and subjective well-being. Taken together, this evidence suggests that the program is largely living up to its promise of a "triple win" for migrants, their sending countries in the Pacific, and New Zealand.

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The authors may be contacted at dmckenzie@worldbank.org.

Development through Seasonal Worker Programs:

The Case of New Zealand's RSE Program[#]

John Gibson, *University of Waikato*

David McKenzie, *World Bank*

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1. Introduction

Almost all OECD countries have temporary worker migration programs, with seasonal workers usually the largest single category, averaging over 500,000 workers a year over the 2006-2011 period (OECD, 2013). Seasonal worker programs have historically been one of the few opportunities for low-skilled workers from poor countries to benefit from the higher incomes to be earned abroad, and have been seen as a more politically palatable way of doing this than through permanent migration (Luthria, 2008).

However, recently there have been divergent policy movements across countries in the willingness to use seasonal worker programs. The United Kingdom was intending to end its Seasonal Agricultural Workers scheme in December 2013, when E.U. transitional arrangements for Bulgarians and Romanians ended; and the number of workers entering Germany under its seasonal worker program has likewise fallen as workers now fall under the E.U. free circulation regime. In contrast, Italy and the Republic of Korea have recently eased entry conditions for seasonal workers (OECD, 2013). Meanwhile, Canada's Seasonal Agricultural Workers Program (SAWP), which began in 1966, and the U.S. H2-A temporary agricultural worker program have seen reasonably steady numbers of workers entering over the last 5 years.[1]

A more recent policy direction has been to explicitly view these seasonal worker programs as a part of international development policy, and design such programs with this goal in mind, in addition to the traditional goal of meeting domestic agricultural needs. The subject of this paper, New Zealand's Recognised Seasonal Employer (RSE) program, is of interest as one of the first and most prominent of these programs. The RSE was designed to meet the labor needs of New Zealand employers while also encouraging economic development in the Pacific Islands, which were designated as the main source area for workers. The policy was developed taking account of lessons from previous seasonal worker programs elsewhere and is viewed as a possible model for other countries. For example, the ILO good practices database states "The comprehensive approach of the RSE scheme towards filling labour shortages in the horticulture and viticulture industries in New Zealand and the system of checks to ensure that the migration

[1] The Canadian SAWP had 28,231 workers in 2008 and 29,025 in 2012 (http://www.hrsdc.gc.ca/eng/jobs/foreign_workers/lmo_statistics/annual2012.shtml), while the U.S. H2-A had 64,404 visas in 2008 and 65,345 in 2012 (http://travel.state.gov/visa/statistics/graphs/graphs_4399.html).

process is orderly, fair, and circular could service as a model for other destination countries."[2] Australia has subsequently launched its own seasonal agricultural worker program, which also has an objective of aiding development in the Pacific (Gibson and McKenzie, 2011).

Examination of the details of how the RSE operates should therefore be of interest for development as well as immigration policy makers. Moreover, it is of additional interest from a research perspective, because the policy's launch was accompanied by a systematic program of prospective research designed to carefully measure the impact of the program on local employers and native workers (NZDoL, 2010), as well as its impact on development outcomes in the sending countries (Gibson and McKenzie, forthcoming). Although a relatively new program, the RSE has also been the main subject for at least two doctoral dissertations (e.g. Bedford, 2013) and several other graduate research projects. The openness of employers, officials, source communities and workers to being researched is notable, since seasonal and other guest worker programs are potentially controversial issues in some countries. This openness may be one reason why the RSE has been largely free of alarmist claims and other misleading publicity which immigration programs sometimes attract.

We begin by detailing the background context to the launch of the RSE program, and the details of how the policy operates in practice, including the role of development policy facilitation measures, the recruitment process, and program features designed to minimize the dual risks of workers overstaying or being exploited. Next we discuss the evolution of the program in terms of worker numbers, and the degree to which workers return for multiple seasons. This is followed by analysis and new evidence of the impacts of the program on New Zealand employers and New Zealand workers, and of the impacts on development outcomes for Pacific Islanders participating in the program. We conclude with lessons from the RSE for both development and immigration policy.

2. The Recognised Seasonal Employer Scheme

2.1. Origins

New Zealand's horticultural industry has grown from NZ$200 million in export sales in 1991 to NZ$2.23 billion in 2011, making it the sixth largest export industry in New Zealand.[3]

[2] http://www.ilo.org/dyn/migpractice/migmain.showPractice?p_lang=en&p_practice_id=48 [accessed August 11, 2010]

New Zealand's wine industry has seen even more rapid export growth, growing from NZ$300 million in export sales in 2004 to almost NZ$1.2 billion in 2012.[4] Collectively it is estimated that the horticultural and viticulture industries need at least 50,000 workers a year at peak times to pick and pack fruit, prune, and prepare orchards and vines for the next season (Ramasamy et al, 2008).

Historically these employers had relied on a range of students, local casual workers, people entering New Zealand as working holiday-makers, and migrant workers coming through a range of other temporary work schemes to help carry out these tasks. But the rapid growth in these industries, coupled with low levels of unemployment in New Zealand, meant that by the mid-2000s employers were increasingly having trouble obtaining sufficient numbers of workers in peak times. Moreover, on top of concerns about the number of workers, employers were also concerned about worker quality, with high levels of worker turnover resulting in few opportunities for sustained training of workers and poor quality work reducing the value of crops harvested. Ramasamy et al. (2008) report that the horticultural industry estimated that the shortage and poor quality of labor was annually costing NZ$180-300 million in lost output and NZ$140-230 million in lost value added.

In response, in 2004 the New Zealand government introduced temporary policies to allow employers to recruit labor on seasonal work permits during the 2005-06 season while working to develop a more comprehensive policy response. Some employers brought in temporary workers on employer approval-in-principle (AIP) schemes whereby foreign workers could be offered work provided they could show they could not meet this need with the local labor force. Approximately 2,000 workers came through such categories in the 2005-06 financial year, including 60 workers from Samoa, 7 from Tonga, and 11 from Vanuatu (Gregory, 2006).

During the same period, there was growing pressure from Pacific Island governments to allow more movement of unskilled and low-skilled migrants from these countries to New Zealand and Australia. The New Zealand government undertook an interagency consultation (involving the Department of Labour, Ministry of Foreign Affairs and Trade, and New Zealand Agency for International Development), leading to a 2006 cabinet policy paper. A major World

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[3] http://www.hortnz.co.nz/Overview/About-Us/Industry-statistics.htm [accessed October 18, 2013]. NZ$1 = US$0.85 [October, 2013]

[4] http://www.nzwine.com/assets/sm/upload/da/9i/te/eu/NZW_Annual_Report_2013_web.pdf [accessed October 18, 2013].

Bank (2006) report on mobility in the Pacific noted how the small and remote countries in the region facing growing youth populations would struggle to provide sufficient jobs, and highlighted the potential gains from more labor mobility.

The World Bank initiated a small pilot of 45 workers under the AIP process to test recruitment of workers from Vanuatu, a country with very little previous migration to New Zealand (Luthria and Malaulau, 2013). They were hired by Seasonal Solutions, a co-operative in Central Otago. This enabled demonstration that recruitment was possible, and helped cement ties that led to Vanuatu ultimately being the largest participant in the scheme.

A Horticulture and Viticulture Seasonal Working Group, styled as a partnership between industry, government, and other organizations such as labor unions was formed to develop a medium to long-term strategy for the industry, and from this, the details of the Recognised Seasonal Employer (RSE) were formed.

2.2 The RSE Policy and Recruitment

The RSE was announced on October 25, 2006, and officially launched on April 30, 2007. It initially imposed an annual cap of 5,000 seasonal workers, who could come to New Zealand for a maximum of seven months per 11 month period to work in horticulture and viticulture.[5] A specific objective of the program was to encourage economic development in the Pacific, with Winston Peters, New Zealand's Minister of Foreign Affairs, stating at the announcement that "First and foremost it will help alleviate poverty directly by providing jobs for rural and outer island workers who often lack income-generating work. The earnings they send home will support families, help pay for education and health, and sometimes provide capital for those wanting to start a small business".[6]

In order to mitigate displacement of New Zealand workers, and encourage employers using the program to recruit from the Pacific, there is a multi-tier approach to recruitment. A "New Zealanders first" principle requires that employers first lodge their vacancies with the

[5] Given their greater travel costs, citizens of Kiribati and Tuvalu are allowed to stay for a maximum of 9 months per 11 month period, instead of seven.

[6] Quoted in "Seasonal work policy benefits Pacific says Peters", *Islands Business*, October 26, 2006. http://www.islandsbusiness.com/news/index_dynamic/containerNameToReplace=MiddleMiddle/focusModuleID=130/focusContentID=6691/tableName=mediaRelease/overideSkinName=newsArticle-full.tpl (accessed August 11, 2010).

Ministry of Social Development (which provides welfare benefits and job search services) before attempting to recruit offshore. Then preference is given to recruiting workers from the Pacific Forum countries (except Fiji, which was made ineligible to participate after a coup). Employers are only able to recruit from outside the Forum Island countries if they can show that i) reasonable attempts to recruit from these countries have not been successful; or ii) the employer has pre-established relationships with workers of other countries, or can otherwise provide reasonable grounds why it is not feasible to recruit from the Pacific countries.

On top of this, bilateral interagency understandings were negotiated between New Zealand and five Pacific states: Kiribati, Samoa, Tonga, Tuvalu and Vanuatu.[7] These five countries were referred to as the "kick-start" countries, and received facilitation efforts from NZAID and other agencies to launch the scheme and recruit in these countries. These interagency agreements covered how workers were to be recruited, the provision of pre-departure orientation material, visa processing, and compliance with regulations.

Employers wishing to recruit workers under the RSE first have to register and get approved as a recognized seasonal employer. This requires demonstrating that they are financially viable, can pay workers at least the minimum wage for 30 hours a week, that they can provide accommodation and pastoral care to workers, that they have a dispute resolution process for workers, and that they have in the past met all relevant immigration and employment laws. They then need to apply for an Agreement to Recruit (ATR) from the Ministry of Labour which specifies the number of workers required, the types of positions, the length of time the positions are open, the employment agreement that workers will be offered, and the countries the employer intends to recruit workers from. Employers are required to pay half the return airfare for the workers, and ensure that return tickets are purchased when the workers are recruited. If they pay the full cost of the airfare, they are able to recover up to half from deductions from worker wages.

Under the "pastoral care" requirement in the RSE, employers are required to provide arrangements to help workers arrive, settle in, and have access to adequate facilities while in

[7] These can be found at http://www.dol.govt.nz/initiatives/strategy/rse/understanding.asp [accessed October 18, 2013].

New Zealand. This includes arranging transport to and from the port of arrival and departure, providing access to suitable accommodation (which workers pay for), arranging transportation to and from the worksite, providing safety equipment when needed, providing access to banking facilities and opportunities for recreation and religious observance, etc.

The provision of pastoral care and the adherence to other general labor market conditions is monitored by labor inspectors who are employed by the same government agency that handles all immigration matters. This unified approach to employment demand, visa processing and workplace monitoring, may have helped with the relatively smooth implementation of the RSE. In contrast, in many countries these functions would each be undertaken by separate agencies, and may even come from different levels of government in federal settings, allowing possible scope for bureaucratic competition to slow down implementation of a seasonal work program.

An employer with an ATR is then able to recruit seasonal workers. However, the problem then arises of how a farmer in New Zealand could match with an appropriate worker in the Pacific Islands at least in the early years of the program when the possibility of using repeat workers to recruit others was unavailable. The "kick-start" facilitation process aimed in part to facilitate this process. Moreover, the Pacific Island governments were interested in ensuring the benefits of participating in the program were spread throughout their countries, and that the workers they sent developed a good reputation for the country as a source of seasonal workers. The interagency agreements therefore spelled out how workers could be recruited in each country.

The first method of recruitment, which was particularly important in the first year of the program, was for employers to recruit from a "work-ready pool" of workers who were pre-screened and selected by the labor ministry in the kick-start state. For example, in Tonga, more than 5,000 Tongans registered for the work-ready pool within the first three months of the program (Gibson et al, 2008). District and town officers, together with church and community leaders, pre-select and screen candidates. The Ministry of Labour in Tonga provides guidelines, along with an indication of the number of candidates to nominate, specifying that the number that can be nominated will be distributed fairly in proportion to population size. These individuals are then checked to ensure there are no court orders which restrict the individuals leaving, and form the pool that recruiters can select from. Employers can then indicate the number of workers needed, any specialist skills or attributes (such as height), and if they would prefer nominees all from a single district in order to establish a community linkage, or to select nominees across different districts, and the Ministry then provides a shortlist that they can select from.

The second method of recruitment is for RSEs to recruit through an agent, with the agent responsible for screening and selecting the workers. This process has been used most extensively in Vanuatu (and subsequently in the Solomon Islands), where the government licenses agents for this purpose, and requires that they are only allowed to charge the employers, not the workers, for this service (McKenzie et al., 2008). The agents would then use community contacts and village councils to help pre-screen workers. Employers have been reluctant to pay agents at times given that free government–facilitated recruitment has been available in most countries and also given their option of direct recruiting (Luthria and Malaulau, 2013).

The third method of recruitment is direct recruitment by employers. Clearly when a potential employer has no existing links to an overseas recruiting area, this is a difficult option. However, once employers have participated in the RSE scheme for several years and started to develop contacts in particular countries or regions, then this option becomes more attractive as they can rely on past workers to help identify and screen promising new workers for subsequent seasons, in addition to re-hiring those who have previously worked for them.

Recruitment policy matters for both the efficiency of the program, and for its distributional impact. If recruitment is costly and burdensome, then this increases the costs to employers of participating, and reduces the overall demand for workers. But as well as how many get recruited, the policy can play an important role in terms of *who* is recruited. In Tonga, the Labour Ministry ensured that all villages in the country had workers in the scheme, and emphasis was put on selecting individuals from low-income families in financial need (Gibson et al, 2008). The result is that RSE participants from Tonga in the first year tended to be poorer, more rural, and with less schooling, than non-participants. In contrast, in Vanuatu, the workers selected for the RSE tended to be wealthier and more urban than both the non-successful applicants and those who did not apply. This likely reflects a combination of both the recruitment approach, with a greater role for direct recruiting and agents, and less emphasis on choosing poorer individuals; as well as the fact that international migration was relatively new for most households in Vanuatu and poorer households lacked knowledge and/or financing to participate.

Some employers may only need workers for a peak harvest time, and not for long enough to meet the requirements of the program or needs of the workers. Several possibilities exist. First, it is possible for employers to join together to submit joint applications to recruit, so that, for example, a worker may then be employed by one farmer to pick apples for two months, then a second employer may hire them for three months to work on their kiwifruit orchard. Second, in several cases, grower cooperatives such as Seasonal Solutions have registered as an RSE, and the workers can then be placed by the cooperative in several farms over the recruitment period.

2.3 Key Program Features Designed to Reduce Potential Negative Impacts

Two of the biggest policy concerns raised about temporary worker programs are the risk that workers overstay, and the risk that workers are exploited or abused. There can be a tension between these two concerns, since some measures designed to reduce the risk of workers overstaying (e.g. limiting their ability to claim asylum or restricting them from switching employers) can potentially increase the risk of employers exploiting them. We discuss features of the RSE program that are designed to address these issues.

Several features of the RSE are designed to reduce the risk of workers overstaying, through changing the incentives of both employers and workers for overstaying. Perhaps the most important is that workers are limited in the time they can stay in any given year, but are free to return again in subsequent years. Since the work itself is seasonal, this induces a natural return in the off-season, with employers then able to request the same workers back the subsequent year if they wish (and workers are also able to apply to other employers in subsequent years). Second, by having employers cover half the airfare and guarantee at least a minimum remuneration, workers are able to recoup quickly the costs of travel and do not need to overstay in order to repay debt incurred to participate.[8] Third, employers are required to pay the costs associated with removal of workers from New Zealand if they do overstay (up to a maximum of NZ$3,000),

[8] The minimum remuneration is the greater of 240 hours at the "per hour" rate regardless of the actual availability of work, and payment for an average of 30 hours per week at the "per hour" rate for the period worked.

giving them incentives to select workers that they do not think will overstay and not to be complicit in any overstaying.

An additional interesting feature in reducing the role of overstay is the role of reputation and competition for places in the program. This occurs both at the source country level, and at the village level within countries. Since employers have a range of potential countries to recruit from, the Pacific kick-start states are acutely aware of the need to build a reputation for reliable, dependable workers. This is made explicit in the Inter-Agency Understandings, for example, the 2009 IAU for Vanuatu states "The New Zealand Government has zero tolerance for overstaying under the RSE Policy…RSEs are unlikely to seek to recruit further workers from Vanuatu if they experience negative consequences for non-compliance relating to Vanuatu workers." This then translates into consequences for selection within countries. For example, in Samoa the Prime Minister announced that as punishment for any shameful behavior by RSE workers while in New Zealand, the worker's whole village would be banned from taking part in the program for two to four years (Duggan, 2013). The consequence is that there is social pressure not to jeopardize the future possibilities for others by overstaying and thereby creating a negative reputation for one's community.

The result has been very low overstay rates, as seen in Table 1. Overstay rates have averaged under 1 percent for the first six seasons. NZDoL (2010) attributes the overstaying in the first two years largely to a couple of isolated cases in which workers had disputes with employers about insufficient work being available.

Table 1: RSE Overstay rates by Financial Year

Financial year	**Overstay rate (%)**
2007/08	0.47
2008/09	0.62
2009/10	1.25
2010/11	1.02
2011/12	1.03
2012/13	0.70
Overall first six years	0.86

Source: Data provided by New Zealand Ministry of Business, Innovation and Employment. Note that cases which are not resolved in one fiscal year are carried over to the next fiscal year, so these rates are upper bounds for the number of stayers.

A common concern in temporary worker programs in which a worker's employment status is tied to a particular employer is that this leads to a disparity of power between the employer and the worker, with the possibility that workers are then exploited or sent home by the employer if they complain too much (Macllelan, 2008). The RSE tries to mitigate this risk in several ways. It mandates that employers provide "pastoral care" to workers, including accommodation, transportation, recreational and religious opportunities, etc. RSE workers are subject to the same employment and workplace legislation as native workers, including minimum wage laws and work safety laws, and are eligible to join unions. Labor inspectors investigate complaints and issues raised by workers. In addition, Samoa and Tonga have liason officers drawn from their diaspora in New Zealand who can address issues around migrant worker welfare (Luthria and Malaulau, 2013). These efforts appear to have prevented any of the horror stories sometimes heard with captive guest workers in some other countries. Nevertheless, Maclellan (2008) notes a couple of concerns with the initial year of the program: first, some complaints about the quality of housing conditions; and second, a concern that a few workers who were sent home for alcohol-related incidents were subject to a different standard than local workers would have been.

2.4 RSE Numbers and the Cap

The RSE initially imposed an annual limit of 5,000 visas, which was to be reviewed based on the capacity of the New Zealand labor market. This was raised to 8,000 in 2009. The annual limit is measured from 1 July to 30 June, based on the New Zealand government financial year. It is a cap, not a quota, with actual numbers depending on employer demand up to this cap. Table 2 reports the overall numbers, and numbers by main source country, over the first six years of the program. In total, 39,079 worker arrivals have been recorded over the first six years, with 28,849 coming from the five kick-start countries (73.8%), and further 1,887 coming from the Solomon Islands – a Pacific Forum state that was not one of the initial five kick-start states, but entered into an Inter-Agency Understanding in 2010. The main three remaining countries for recruiting are Indonesia, Malaysia, and Thailand, based largely on prior linkages some employers had to these regions.

Table 2: RSE Worker Arrivals by Financial Year (July to June)

	Kick-Start States	

Financial year	Total	Tonga	Samoa	Vanuatu	Kiribati	Tuvalu	Solomons	Other Countries
2007/08	4486	805	647	1698	69	99	238	930
2008/09	6821	1355	1228	2342	38	49	311	1498
2009/10	6216	1142	1021	2137	48	54	256	1558
2010/11	7091	1411	1219	2352	149	51	252	1657
2011/12	7009	1398	1162	2412	142	88	407	1400
2012/13	7456	1573	1137	2829	138	56	423	1300

Source: New Zealand Department of Labour, http://www.dol.govt.nz/initiatives/strategy/rse/information.asp

Vanuatu has supplied the most workers to the RSE, which is somewhat unexpected given that Tonga and Samoa both had initially much stronger ties to New Zealand through existing migrant networks, and through permanent migration programs. The positive experience of Seasonal Solutions, a large co-operative, in hiring ni-Vanuatu during the initial pilot of 45 workers seems to have been important here. A common theme in discussions with officials from several countries is that an employer-driven scheme like the RSE can see a supplying country quickly gain momentum if workers from that country establish a good reputation. For example, when exploring how the Solomon Islands became the fourth largest supplier, despite the initial absence of any facilitation measures and a limited diaspora in New Zealand, officials in Honiara repeatedly stressed that the good performance of the initial group caused employers to recruit more from this country. It also may have helped that the largest single RSE, with a labor demand of approximately 1,000 workers, was one of the first employers of Solomon Islanders (as part of a mixed workforce of other Pacific Islanders) and is one of the few RSEs with sufficient scale to have large increases in demand for labor from a supplying country.

Another lesson from the data in Table 2 concerns the importance of geography and costs. Despite the kick-start efforts, the numbers of workers coming from the more remote countries of Kiribati and Tuvalu have been relatively small. Bedford et al. (2010) discuss the case of Tuvalu, and note a number of factors for low recruitment, including the larger geographic distance and small population size, and a lack of pro-active actions by the government of this country. For Kiribati, the constraining distances are not only for the international travel (which is recognized by allowing a longer worker period in New Zealand), but also for domestic travel in order to be recruited, given that the Gilbert Islands region of Kiribati is several thousand kilometers from the capital city. The increase in workers from Kiribati since 2010 reflects deliberate efforts by the New Zealand authorities, under the Strengthening Pacific Partnerships program, to target recruitment, with workers particularly going into pack houses. While this ongoing and special set of facilitation measures was successful in the short-run, if employers faced the burden of these extra costs it is likely that they would look for workers from nearer Pacific countries.

The cap of 8,000 workers effectively was binding in the 2012/13 season. In this year 8,175 RSE visas were approved, but the actual number of arrivals was 7,456 since employers at times find themselves needing fewer workers than they apply for. Marquet (2013) reports some requests from the horticulture and viniculture industries for this cap to be raised, but that currently there is no plan to do so. However, it does not appear to be the case that the cap is vastly lower than employer demand, with recruitment occurring throughout the year and the available permits not all being exhausted within a few days as occurs with programs like the U.S. H1-B worker program.

3. Circularity and Worker Return

Circularity is one of the key features of the RSE policy. By allowing workers the opportunity to return again to work in subsequent seasons, the policy helps provide incentives for workers to return home at the end of each season, and provides the potential for employers to benefit in subsequent seasons from the training they have provided to workers in the current season.

Merwood (2012) uses administrative data to investigate the rate of return migration over the first four seasons of the RSE. Table 3 summarizes this data. Each year in the first three years saw approximately half the workers return to work immediately in the next season. Most of these workers returned to work for the same employer. For example, 52.2 percent of workers from the first year (2007/08) returned to work in the RSE in the 2008/09 year, and 86.1 percent of these did so by returning to work for the same employer. Some workers who did not return immediately did so in a subsequent season, so that 60 percent of those who had participated in the first season also returned for at least one of the subsequent three years. Just under one-quarter (23 percent) of the workers from the first season participated in every single one of the first four seasons.

Table 3: Repeat Migration in the RSE

Financial year	Percent of RSE workers who returned in the next year	Percent of return workers going back to the same employer	Percent of workers in this season who have worked in any previous RSE season
2007/08	52.2	86.1	0
2008/09	44.6	88.2	34.8
2009/10	52.3	86.6	59.5
2010/11	n.a.	n.a.	62.1

Source: Merwood (2012)

Table 4 provides a more recent update, looking at the RSE workers working in the 2012/13 season, which is the sixth year of the RSE. Overall, 31 percent of the migrants working in this season were in their first year of the program, 22 percent their second year, 16 percent their third, and 31 percent their fourth or higher season. The three main Pacific nations participating in the program all have worker breakdowns similar to these overall averages.

Table 4: Seasonal Composition of RSE Workers in 2012/13 season

Nationality	Number of RSE workers 2012/13	Percentage of workers by number of seasons worked			
		1st Season	2nd Season	3rd Season	4th (or more) season
Vanuatu	2829	34%	25%	13%	27%
Tonga	1573	31%	20%	17%	32%
Samoa	1137	28%	22%	19%	32%
Thailand	565	12%	21%	24%	44%
Solomon Islands	423	42%	23%	13%	22%
Indonesia	303	19%	12%	15%	54%
Malaysia	273	49%	14%	11%	26%
Kiribati	138	27%	29%	26%	19%
Others*	215	32%	16%	11%	41%
Total	**7456**	**31%**	**22%**	**16%**	**31%**

Source: Ministry of Business, Innovation and Employment (2013). Analysis by Paul Merwood

Table 5 uses data from surveys of Tongan and Vanuatu RSE workers conducted by the authors at the end of the second season of the RSE to summarize the self-reported reasons for individuals not returning for a second season. Approximately two-thirds in each country say they would like to migrate again, but were not selected for a second year. Few migrants say they have reached a target level of savings, or that injury or sickness is preventing them from going. The launch of Australia's seasonal work program had led some to consider working there instead, given the higher pay rates available in Australia. The ni-Vanuatu workers expressing dissatisfaction with earnings the first time attributed this in part to the deductions from their wages being higher than they had anticipated – both because of income tax (something they were not used to), as well as for airfare and accommodation. The Tongan workers expressing dissatisfaction with earnings mainly attributed this to there being fewer hours of work than they had anticipated.

Among those workers who did return for a second season, Tongans said they would like to work in New Zealand for a median of two more seasons, while ni-Vanuatu would like to work for a median of four more seasons.

Table 5: Reasons for Not Returning for a Second RSE Season

	Percent of one season migrants who say this is an important reason for not returning for another season	
	Tonga	Vanuatu
Dissatisifed with how much they earned the first time	42.7	50.0
Missed their family too much while away	66.0	23.1
Would like to go again, but haven't yet been selected	64.1	65.4
Earned enough the first time to reach their target	0.0	24.0
Personal sickness, injury, or family emergency	4.9	8.0
Prefer to try and work in Australia's program	23.3	48.0
It was too cold in New Zealand	0.0	64.0
Other	4.9	7.7
Number of Respondents	103	26

Source: Survey Responses of Single Season Migrants, from surveys described in Gibson and McKenzie (forthcoming)

4. Impacts on New Zealand Employers and the Local Workforce in New Zealand

An evaluation of the first two years of the RSE program in New Zealand was undertaken by a New Zealand consulting firm specializing in program evaluations of public sector programs (NZDoL, 2010). It used a mixed methods approach to evaluate the impacts of the program, but largely used qualitative interviews with employers, government officials, and workers.

In terms of worker displacement, the evaluation suggests that there was some displacement of New Zealand workers in the kiwifruit industry in one region of New Zealand in the first season, due to a large employer over-estimating the number of RSE workers they would require – although it is unclear what the evidence for this displacement is. In the second year the report concludes that displacement of New Zealand workers does not appear to have been an issue because employers were better able to judge demand.

In practice the extent of displacement is complicated to estimate rigorously. In theory the RSE can influence the employment of locals through a large number of channels. Clemens (2013) describes some of these channels in the case of US agricultural migrant labor. The obvious direct effect that is foremost on the public mind is that migrant workers do work that might otherwise be done by local labor. However, in practice it is not always clear how willing native workers are to do the same work. The qualitative evaluation reports that local workers were less likely to want to do physically demanding "front-end" work, or to want to work night shifts; and preferred "back-end" or inside work like (day-time) pack-house work, truck driving, and fork-lifting. Moreover, employers had difficulties retaining New Zealand workers when temperatures began to drop.

Moreover, apart from this direct effect, seasonal labor can have a number of indirect impacts on the employment opportunities for local workers. To the extent that the RSE makes farmers more productive (which we examine next), it can lead to farms expanding scale and/or being more likely to survive, both of which increase the total number of jobs available in agriculture. This is especially likely to raise employment in jobs which are complementarity to immigrant labor. There can also be impacts throughout the supply chain – for example, better quality grapes can expand the demand for New Zealand wine, creating more employment in the New Zealand wine industry.

Ideally one would like to compare the employment of New Zealand workers relative to a counterfactual of no RSE. Business cycle and annual changes in growing conditions mean that simply comparing their employment prior to the RSE to that after will not give the causal impact of the program. A difference-in-differences approach in which workers likely to work in agriculture pre-RSE had their changes in employment compared to those of workers of similar skill levels likely to work in other industries would at least account for business cycle conditions, but would still not account for industry-specific shocks such as better or worse growing conditions. In larger countries one might be able to look at regional variation in the uptake of the seasonal worker program using instruments (such as historic networks interacted with production shocks in sending countries) to obtain variation in the use of the program, but such an approach is unlikely to work in a small country like New Zealand.

As such, it may not be possible to directly obtain rigorous estimates of the impact of the RSE on worker displacement. But the demand pressures that led to the scheme being introduced help suggest that any impacts are unlikely to be that large. Employers did report difficulties hiring local workers prior to the implementation of the RSE, and also reported high worker turnover. It seems likely that some of the displacement effect occurred for working holiday-makers (typically young tourists who would work for several weeks to earn money before leaving to holiday in other areas of New Zealand), rather than local workers. Indeed, one reason suggested for the much slower growth of Australia's seasonal worker program is that policy biases favoring employment of working holiday-makers have stunted the demand for Pacific workers (Hay and Howes, 2012), suggesting a degree of substitutability between these two labor sources. In contrast, the supply of local workers may be more inelastic, and in fact there continue to be reports of growers struggling to find local workers, with Murdoch (2013) reporting that only 178 clients of the New Zealand Work and Income service took jobs in seasonal work in the last year.

Indeed employers identify a more stable and predictable workforce with lower worker turnover as one of the main benefits to them in the first year of the program, with higher productivity gains in the second year as returnee workers were able to operate at a higher quality level immediately (NZDoL, 2010). This reduces training costs to employers, ensures they have workers at the optimal times to harvest fruit, and potentially by reducing uncertainty gives them more confidence to invest. Employers stressed in interviews the importance of being able to get fruit off the vines and packed quickly at the optimal harvest time, otherwise it would not be saleable. One employer in these interviews with the evaluation team said that their fruit was graded and packed according to quality standards, with these standards met only 70 percent of the time in 2007/08, increasing to 90 percent in 2008/09 as they benefited from the second season of RSE workers. In employer surveys, 95 percent of RSEs agree that participation in the program has resulted in better quality and more productive workers and employers rate Pacific workers as more dependable, productive, and enthusiastic than all other categories of seasonal workers (Department of Labour, 2012).

To measure the impact of the RSE on employers, one would ideally like to measure changes in employer production and earnings (to account for quality improvements) relative to these same changes for a comparable control group of employers that do not participate in the RSE. We set out to try and collect data from farmers in New Zealand, but were unable to collect detailed production data from many farmers. However, in a couple of cases we were able to collect data that at least provide some case study evidence on the relative productivity of new and return RSE workers for farmers, and of RSE workers versus other workers. We present this evidence for the first time here.

Table 6 uses data from a citrus orchard from 2011 to compare the productivity of first, second, third, and fourth year RSE workers. Since workers are paid piece rates, earnings are a reasonable approximation to productivity. Considering only workers who worked for the full season, we see that workers in their second year earned approximately 10 percent more than workers in their first year of the RSE, with this premium increasing to 13 percent for two years of prior experience, and 18 percent for three years of prior experience.

Table 6: Gross earnings of full season workers at one citrus orchard by years of experience in the RSE

Year of RSE experience	Number of Workers	Mean Earnings per worker in 2010/11	Productivity premium over 1st year workers	Median Earnings per worker in 2010/11	Productivity premium over 1st year workers
First	24	14408		14318	
Second	17	15726	9.1	15916	11.2
Third	10	16262	12.9	16258	13.5
Four	10	17050	18.3	16880	17.9

Source: Data provided by citrus RSE

Table 7 presents similar data from an apple orchard that employed a mix of RSE workers, New Zealand contract labor, casual labor, and backpackers. Again the RSE workers are more productive in their second and third years than in their first, with the productivity premium similar in magnitude (for the change in the mean) to that in the citrus orchard. The RSE workers are 50-60 percent more productive than backpackers and New Zealand casual labor, and 11-18 percent more productive than other New Zealand contract workers, even those returning for multiple seasons.

Table 7: Weekly earnings of RSE and local apple workers at one orchard during 2011 season

	Number of Workers	Mean Weekly Earnings per worker in 2011	Productivity premium over 1st year workers	Median Earnings per worker in 2010/11	Productivity premium over 1st year workers
RSE workers					
First year	46	679		641	
Second year	25	733	8.0	773	20.6
Third year	12	771	13.5	774	20.7
New Zealand workers					
First year	32	608		622	
Second year	15	621	2.1	617	-0.8
Third year	7	657	8.1	637	2.4
Backpackers	21	511		519	
New Zealand casual labor	36	475		469	

It is unclear how much of the higher productivity of return RSE workers represents gains to experience versus selection effects of which workers farmers invite back for another season. Worker productivity and earnings are greatly affected by weather factors which determine how good the crop is from one year to the next. As such, even if workers are more productive in their second or third season, they may earn less than they did in their first year if drought or other weather factors reduce the amount of fruit available to pick. We therefore use microdata on workers in an apple orchard to explore this issue. We compare the earnings in 2010 of workers who worked in 2009 for the first time and then returned for 2010 to the earnings in 2010 of workers who worked in 2010 for the first time, but returned for 2011. Assuming the selection process of whether to return for a second year is unchanged, the 9.6 percent higher wages of those in their second year reflects a productivity premium, and suggests there is not strong positive selection in who returns taking place at this orchard.

One may be concerned that differences in earnings also reflect differences in tasks or in bargaining arrangements, and so may not be a true measure of productivity. Table 8 therefore provides the one example we have where we were able to obtain data on physical productivity. Here all workers were picking bins of mandarins during the same 7 day period in 2011. We see that the RSE workers are vastly more productive: they picked an average of 54 percent more fruit per day than New Zealand contract labor, and 82 percent more than backpackers and working holiday-makers.

Table 8: Physical productivity of labour at peak of mandarin harvest of 2011

	RSE Pacific workers	New Zealand contract labor	Backpackers (including working Holiday-makers)
Average number of pickers per day	60	21	17
Average kilograms picked per person per day	759	494	416
Average wage earned per person per day ($)	125.36	84.93	98.48
Average wage paid per kilogram harvested (cents)	17	17	24

Source: Data provided by citrus RSE

Taken together this new evidence supports the notion that RSE workers are significantly more productive than local labor or working holiday-makers, and suggests that the returns to experience for RSE workers are approximately 8-10 percent for the first year, and continue to increase for the next two seasons.

5. Development Impacts of the RSE

Despite the prevalence of seasonal worker programs throughout the OECD, there is strikingly little evidence on the impacts of participating in these programs for the migrants, their families, and their home countries. An innovative feature of the RSE was that the launch of the program was accompanied by the launch of a prospective impact evaluation designed to measure these impacts (Gibson and McKenzie, forthcoming).

Between October 2007 and April 2008 we conducted baseline surveys of households and communities in Tonga and Vanuatu before workers left to work in New Zealand. To construct a baseline, we worked with officials to identify households with RSE workers, households with members of the RSE work-ready pool who had not yet been selected, and then randomly selected households in the same villages which had no applicants to the program. In Tonga our sample had near national coverage given the wide geographic participation in the program, with the baseline survey covering 448 households containing 2,335 individuals in 46 villages. Vanuatu was a more challenging country to survey in, with the combination of rugged geography and high transportation costs making it infeasible to survey in all islands: we therefore limited the evaluation to three islands from which we believed there was a high chance of workers coming. Ultimately our baseline survey covered 456 households containing 2,173 individuals in 48 villages or communities.

We then re-interviewed these same households 6, 12 and 24 months later. The surveys collected detailed data on household income, expenditure, labor supply, subjective well-being, and the migration experience. Attrition was extremely low in Tonga, with every follow-up including at least 98 percent of the baseline households. Attrition was higher in Vanuatu, averaging 15-16 percent in each of the first two follow-ups, and 24 percent in the last follow-up. Bounding approaches are used to show robustness of our main results to this attrition.

To measure the impact of participating in the RSE on households, we use propensity-score matching to identify a group of households with RSE migrants and a group of households without RSE migrants that are similar in terms of a rich set of baseline characteristics. In particular, we are able to include a large number of characteristics that communities and employers are likely to have paid attention to when selecting workers, as well as characteristics of the household that may have determined the decision of whether to apply: this includes demographic variables, the health, education and labor market experience of male workers, household networks in New Zealand, household wealth, geographic location, and past income over the last two years. Using this information, we pre-screen the sample to identify comparable households.

We then employ two approaches to measuring the impacts of the RSE. The first is difference-in-differences estimation on this propensity-score screened sample, and the second is panel data estimation with fixed effects. Both give similar results in most cases, and they allow us to control for unobserved time-invariant characteristics of RSE households that may differ from those in households that did not participate in the RSE. Table 9 then summarizes some of the main impacts. Over a two-year period, households participating in the RSE are typically earning 35 percent more income. Some of this goes to an increase in income, while household savings and durable asset ownership increase. Subjective standard of living increases by approximately the same amount (in terms of standard deviations) as the increase in income.

Table 9: Development Impacts of the RSE in Tonga and Vanuatu

	Tonga	Vanuatu
Increase in per-capita income	34 to 38%	35 to 43%
Increase in per-capita expenditure	9 to 10%	28%
Increase in savings	122%	181%
Increase in subjective standard of living	0.45 s.d.	0.43-0.50 s.d.
Percentage point increase in dwelling improvements	10 to 11	7 to 8
Percentage point increase in bank account use	10 to 14	17 to 18

Notes: s.d. denotes standard deviations
Source: Gibson and McKenzie (forthcoming)

The median after-tax income earned in New Zealand reported by the seasonal migrants in our surveys is approximately NZ$12,000. This is in line with administrative data reported by Merwood (2012), and is several multiples of mean household income per capita of RSE households at baseline of NZ$1,400 in Tonga and NZ$2,500 in Vanuatu. One might then wonder why households did not experience even larger increases in per-capita incomes. In Gibson and McKenzie (forthcoming) we note several reasons why the per-capita gain in income to participating households is much less than would be suggested by just comparing incomes earned in New Zealand to those in the Pacific.

A first reason is that workers face costs in New Zealand, both from living expenses (including rent and health insurance) and from repaying their share of the airfare. From the NZ$12,000 in income, the average worker remitted or brought back with them an average of NZ$5,500. Second, when we consider per capita income, this gain in income has to be shared among the family, most of whom are not RSE workers. This requires dividing the amount by 5.7 in Tonga and 4.7 in Vanuatu. Third, we are looking at average impacts over two years, so since just over half the households sent a worker in one year only, the per capita per year effect for these households has to be divided by two. Finally, households also lose any wage income and contribution to agricultural production the household member would have contributed while in New Zealand. Our evaluation strategy allows us to capture all these effects, and thereby measure the net gain to households from participating in the program.

These gains in income per participating worker can be scaled up by the number of participating workers to give a first-order approximation of the total development impact of the RSE over the first two years. We estimate an impact of $NZ5.3 million in Tonga and $NZ9.7 million in Vanuatu. This amount is equivalent to 42-47 percent of total annual bilateral aid from New Zealand to these countries, and is equivalent to almost 50% of annual export earnings for Tonga and 25% of annual export earnings for Vanuatu.

Samoan workers earned an average of NZ$11,720 in the first year and NZ$10,790 in the second year, which is slightly less than the Tongan and ni-Vanuatu workers, but not that much different (Merwood, 2012). Although our evaluation did not cover Samoa (except for a one-off survey), it seems reasonable based on the data available and our experience with the program to believe that the development impacts would have been similar, or just slightly less, per worker than in Tonga and Vanuatu, so that the overall impact over the first two years would also have been of the order of NZ$5 million.

In contrast, Kiribati and Tuvalu had a much smaller number of workers participating in the program. Moreover, those that did participate earned less – only averaging NZ$6,400 in the first season and NZ$10,390 in the second season (Merwood, 2012). In the first season i-Kiribati workers employed by one employer experienced difficulties obtaining sufficient work (NZDoL, 2010). Bedford et al. (2010) discuss the Tuvalu case, and note there were also problems with some workers getting sufficient work in the first year, which coupled with the high costs of participating in the scheme (workers had to cover the cost of getting from Tuvalu to Fiji, and then half the transport cost from Fiji to New Zealand, along with visa, food, accommodation and other such costs) meant that many workers returned with very little money or even were in debt after the first year. One lesson from this was the need for workers to work on contracts longer than three or four months to ensure they make enough. The RSE policy recognizes the higher costs for these two countries, allowing workers from these countries to work a maximum of nine months in an eleven month period (compared to a maximum of seven for all other countries), but few workers have been hired for this long. Table 2 shows some small growth in RSE participation from Kiribati in seasons 4 through 6 due to the ongoing facilitation measures, but that Tuvalu continues to average only 50 to 60 workers each season.

While the largest benefits of participating in such a program accrue to the migrant workers and their families, there is often a hope among policy makers that there can also be broader benefits to other households in the sending countries. There are several channels through which this can occur. The most direct impact is through migrants contributing directly to community projects. As an example, NZDoL (2010) notes that the local government in the Lolihor area of North Ambrym, Vanuatu, requires all workers to contribute approximately NZ$200 a season towards a community fund that then supports projects run by local women such as small business initiatives and crop production, as well as going towards a scholarship fund for local children. In our surveys of communities in Tonga, we found communities saying they had funded the local village water supply, street lighting, a school scholarship fund, and community halls out of contributions from seasonal workers. Based on our impact estimates, the average migrant contributes approximately 5 to 10 percent of the net gain in income per migrant to such endeavors.

The more difficult channel to measure is impacts on local development through multiplier and general equilibrium effects. For example, if migrants and their families spend the increase in income on local production, this raises incomes for the sellers of these products, but can also increase prices if supply is limited. Migrants leaving may open up jobs for the unemployed, or push up wages for other workers who have fewer individuals to compete with. However, our sense in the case of the Pacific Islands is that to date these impacts have been small. Many workers come from rural backgrounds, where their main occupations would have been subsistence farming, and there is not a strong wage labor market. Moreover, much of the spending appears to have gone on imported durable goods and renovations, potentially having limited multiplier effects.

6. Conclusions

Temporary or circular migration programs have been touted as a way for less-skilled workers to benefit from the higher incomes to be earned abroad as part of a “triple-win”, whereby migrants, the sending country, and the receiving country all benefit (e.g. UN, 2004; GCIM, 2005; World Bank 2006). New Zealand’s Recognised Seasonal Employer program appears to have largely lived up to this promise. Migrants from the main participating countries have experienced large gains in income and well-being and employers in New Zealand have gained access to a more productive and stable workforce. Overstay rates have been low, and although the evidence base is not as strong as one would like, there does not appear to have been large displacements of New Zealand workers. There also appear to be positive, albeit limited, spillover benefits for others in the sending communities in the form of public goods contributions.

These results make this seasonal migration program one of the most effective development interventions for which rigorous evaluations are available. As discussed, the RSE has been carefully designed with a number of important features mitigating some of the risks and concerns often associated with temporary worker programs. These design features offer important lessons for other countries. However, while the program is very much employer-led, there has been important investment by both the New Zealand and Pacific governments in setting this program up. Although there are many willing foreign workers, and a number of New Zealand employers desiring to hire them, it is likely to be difficult for many matches between them to be made without initial assistance. Then with time and experience, employers can select return workers and use them to assist in finding new workers, reducing the need for such assistance as the program develops.

A final lesson from the RSE experience has been the importance of good monitoring and evaluation from the very start of the project and an openness by participants to being researched. Measuring the impacts of the program and process evaluation has been important for identifying changes that can make the policy work even more effectively for workers and employers, as well as for helping to cement support for the program among policy makers. Moreover, given the relative lack of information about the impacts of migration policies, such analysis has an important research contribution as well. We look forward to seeing the launch of more such programs, and hope that rigorous evaluation can also be a feature of their launches.

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