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TE MANATŪ WHAKAHIATO ORA

Effectiveness of MSD employment assistance

Summary report for 2014/2015 financial year

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Statistics New Zealand IDI disclaimer

The results in this report are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI) managed by Statistics New Zealand.

The opinions, findings, recommendations and conclusions expressed in this paper are those of the authors, not Statistics New Zealand.

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The New Zealand Defence Force has consented to the release of IDI results for the Limited Services Volunteer programme to Statistics New Zealand as part of this report.

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Overview

This annual report summarises the Ministry's evidence on the effectiveness of its employment assistance (EA) expenditure up to the end of the 2014/2015 financial year.

The analysis presented in the current report differs in several ways from previous EA effectiveness reports. In this report, we:

- included the impact of EA interventions on employment and income outcomes using data from the Statistics New Zealand Integrated Data Infrastructure (SNZ IDI)
- estimated the impact of interventions on future outcomes
- changed how we estimated the cost of EA interventions
- included case management services such as Work Focused Case Management.

Key results

Key findings are as follows:

- In the 2014/2015 financial year, MSD spent a total of $462 million[1] on employment interventions, of which we could rate the effectiveness of $190 million. The remainder cannot be evaluated, the majority of which was on childcare assistance ($201 million).
- The amount spent on EA interventions rated as effective or promising has continued to increase over the last five years, reaching $121 million out of $190 million in 2014/2015. The main reason for this increase has been the inclusion of internally run case management services ($35 million) in our analysis.
- The inclusion of SNZ IDI income and employment outcomes has also altered the rating of several EA interventions. We found some EA interventions that have no impact on welfare independence[2] but increase income and time in employment. The most notable examples are Training for Work ($33 million) and Limited Services Volunteers ($8.3 million).[3]
- After effective and promising EA interventions, the second largest spend was on EA interventions rated as mixed ($66 million). These EA interventions show both positive and negative impacts. The largest intervention in this group is Vocational Services Employment ($31 million) which increases time in employment and income but may reduce independence from welfare in the long-term.
- Currently, $45 million of spending is on EA interventions which are assessed as being too soon to rate. However, short-term impacts indicate most these EA interventions will have either a mixed or negative rating in the next update to this report. In particular, the Youth Service ($35 million) and the recent Mental Health Employment Service Trial ($3.2 million) are unlikely to be rated as effective. In both cases, Service

[1] Expenditure is expressed in nominal dollars (ie not CPI adjusted). Appendix 2 summarises how we calculated the cost of EA interventions.

[2] Not on a main benefit or receiving employment assistance.

[3] In this report, we round expenditure values to the nearest million dollars for values over 10 million dollars and to the nearest $100,000 for values under 10 million dollars.

Delivery is making changes to these interventions to try to improve their effectiveness. We will monitor the progress of these changes in subsequent reports.

Next Steps

While an EA intervention may be rated as effective in this report, this does not necessarily mean the intervention has a positive Return on Investment. That is, the value of its positive impacts outweighs its cost. For the 2015/2016 report, we intend to enhance the analysis by including two measures of cost-effectiveness.

- **Welfare Return on Investment (WRoI)**: for the first measure, we compare the MSD cost of delivering EA interventions to the savings achieved through a reduction in welfare liability.[4]
- **Social Return on Investment (SRoI)**: the second measure takes a wider view of the social costs and benefits of EA interventions. For example, including the value to society of the employment, income, justice and education impacts of EA interventions. The development of the SRoI will occur in collaboration with the Social Investment Unit to ensure consistency across the social sector in measuring and valuing social impacts.

[4] The analysis will be based on the work done by the MSD actuarial team to calculate the Welfare RoI. Results for a selected number of EA interventions are included in the most recent Benefit System Performance Report. Raubal, Judd & Stoner (2016) 2015 Benefit System Performance Report: for the year ended 30 June 2015, Ministry of Social Development, Wellington.

Introduction

This annual report summarises the Ministry's evidence on the effectiveness of its employment assistance (EA) expenditure up to the end of the 2014/2015 financial year. The purpose of this report is to summarise progress towards delivering effective EA interventions and identify where we can make improvements. In doing so, MSD can demonstrate both its implementation of the Investment Approach, as well as, meeting its obligations under the Public Finance Act.[5]

Definition of EA interventions

We confine our analysis to MSD funded interventions with the goal of helping people either prepare, find, move or sustain employment. The term EA interventions include policies, services and programmes either run internally or contracted out. Note that some interventions included in this report may have objectives other than employment. These broader objectives should also be included in any assessment of the future of these interventions.

Assessing effectiveness

By effectiveness, we mean whether an EA intervention improves participants' outcomes relative to the counterfactual (ie the outcomes participants would have had if they had not participated). In the current analysis, we assess effectiveness against three main outcomes:

- **Employment**: the overarching goal of EA interventions is to increase the time participants spend in employment over the long-term.
- **Income**: we judge interventions to have a positive impact if they increase participants' income.
- **Independent of Welfare**: most, but not all, EA interventions also aim to increase the time that participants are independent of welfare assistance (ie off main benefit and not participating in EA interventions).

Based on the impact on one or more of the above outcomes, we categorise EA interventions into the following groups:

- **Effective**: the intervention has a significant positive overall impact
- **Promising**: trend in impacts indicates the intervention is expected to have positive overall impact in the future
- **Mixed**: the intervention has both positive and negative impacts
- **Makes no difference**: the intervention makes no significant difference to any outcome

[5] PFA (2013) Section 34, 2b: The chief executive of a department that administers an appropriation— is responsible for advising the appropriation Minister on the efficiency and effectiveness of any departmental expenses or departmental capital expenditure under that appropriation

- **Likely negative**: based on the trend in intervention impact we expect it to have a long-term negative overall impact
- **Negative**: the intervention has a significantly negative overall impact.

In addition to the effectiveness categories above, we have three additional categories for non-rated EA interventions:

- **Too soon to rate**: there has been insufficient time to judge whether the intervention is effective. Specifically, we generally do not rate an intervention until we have at least two years of outcome results.
- **Cannot be evaluated**: it is not technically possible to evaluate the effectiveness of the intervention.
- **Not completed**: we have not yet assessed the effectiveness of the intervention.

Appendix 3 provides further detail on how we estimated the impact of EA interventions and how we rated each intervention's overall effectiveness.

Limitations of the analysis

The current report has several limitations that the reader needs to keep in mind.

Estimation of effectiveness

Determining the difference (or impact) interventions make is technically difficult. We use a range of methods to estimate the impact of interventions, from very robust methods, such as Randomised Control Trials, through to less robust methods, such as Propensity Score Matching and natural experiments. For the latter group of methods, there is a risk that the reported impacts may not accurately reflect the true impact of the intervention (ie the reported impact is biased). Having said this, the impacts presented in this report are the best available for each EA intervention.

Effects on non-participants are not accounted for

The focus of this report is on EA interventions' impact on participants. We have not accounted for impacts on non-participants. For EA interventions, two important non-participant effects are (i) substitution and (ii) displacement. Substitution occurs when a participant takes a vacancy that would have been filled by someone else and is most likely to occur for job placement programmes. Displacement occurs when subsidised labour can reduce employment among competing firms and is of most concern for subsidy based interventions.

No cross-validation with international evidence

At this stage, we have not included international evidence on EA interventions. Cross-validation with international experience is useful in identifying where New Zealand's experience differs from other jurisdictions. In cases where there is contradictory evidence, we need to more carefully understand why this difference occurred.

Challenges in assessing diverse interventions against a common standard

In some cases, EA interventions have objectives not included in the outcomes covered in this report (eg increase educational achievement). We acknowledge that we may understate the full scope of these interventions. In future updates of this report, we plan

to increase the number of other outcomes to enable a better assessment of the performance of interventions across a wider set of outcome domains.

At the other end of the spectrum, some EA interventions may seek to increase employment, but not to reduce time independent of welfare (eg for people with health or disability for whom full-time work may not be an option). In the analysis, we do not penalise an intervention if it has no significant impact on one or more outcome domain (eg an effective intervention can increase employment, but not change time independent of welfare). But we argue that interventions should at minimum have no negative impacts against the above outcome domains (eg if an intervention increases employment, but also decreases time independent of Welfare then it is given a mixed rating).

Two-year outcome period may be too short for some interventions

For certain EA interventions, such as long-term training programmes, it can take longer than two years before we see an overall positive impact. We partly address this issue by including the projection of the long-term impact of interventions in our analysis. But it may still be the case that for these interventions, as well as certain sub-groups, such as sole parents, we need to allow a longer period before determining if the intervention is effective overall.

Information in this report is insufficient for making decisions on the future of individual EA interventions

As the previous comments make clear, the information in this report is insufficient to make recommendations on the future of any individual EA intervention. Instead, the findings in the report indicate where we need to better understand the effectiveness of individual EA interventions.

Structure of report

The report is structured in the following order. The main body of the report summarises the evidence on the effectiveness of EA intervention expenditure in the 2014/2015 financial year compared to the previous four financial years. Appendix 1 provides a tabular summary of effectiveness results for individual EA interventions. Appendix 2 describes how we estimated the cost of EA interventions and provides the cost of EA interventions funded over the last three financial years. Appendix 3 outlines how our approach and methods for estimating the effectiveness of EA interventions and from this rated their effectiveness. Appendix 4 tabularise's the numerical outcome and impact estimates for all EA interventions included in this report.

Effectiveness of Employment Assistance (EA)

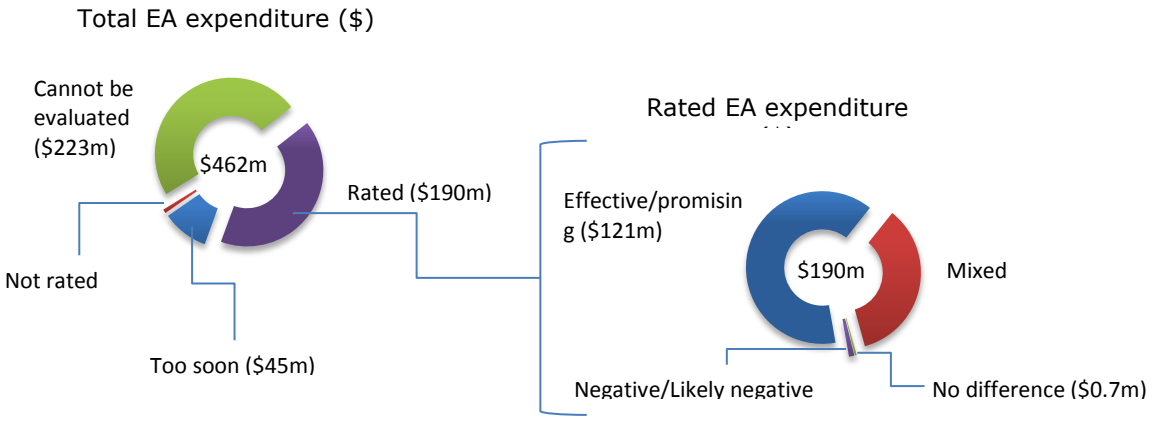
In the 2014/2015 financial year, MSD spent a total of $462 million[6] on employment interventions, of which we could rate the effectiveness of $190 million (41%). We could

[6] Expenditure is expressed in nominal dollars (ie not CPI adjusted). Appendix 2 summarises how we calculated the cost of EA interventions.

not rate the remaining expenditure for three reasons: (i) it cannot be evaluated for effectiveness ($223 million), (ii) it is too soon to assess its effectiveness ($45 million), or (iii) the analysis has not been done ($4 million). Childcare assistance interventions make up most of the non-evaluated expenditure ($201 million).

Figure 1 shows that, of evaluated expenditure ($190 million), $121 million (63%) went on effective or promising employment assistance, $66 million (35%) went on EA interventions with mixed effectiveness and $2.9 million went on interventions that either made no difference or had a negative effect.

Figure 1: Effectiveness of EA expenditure in 2014/2015



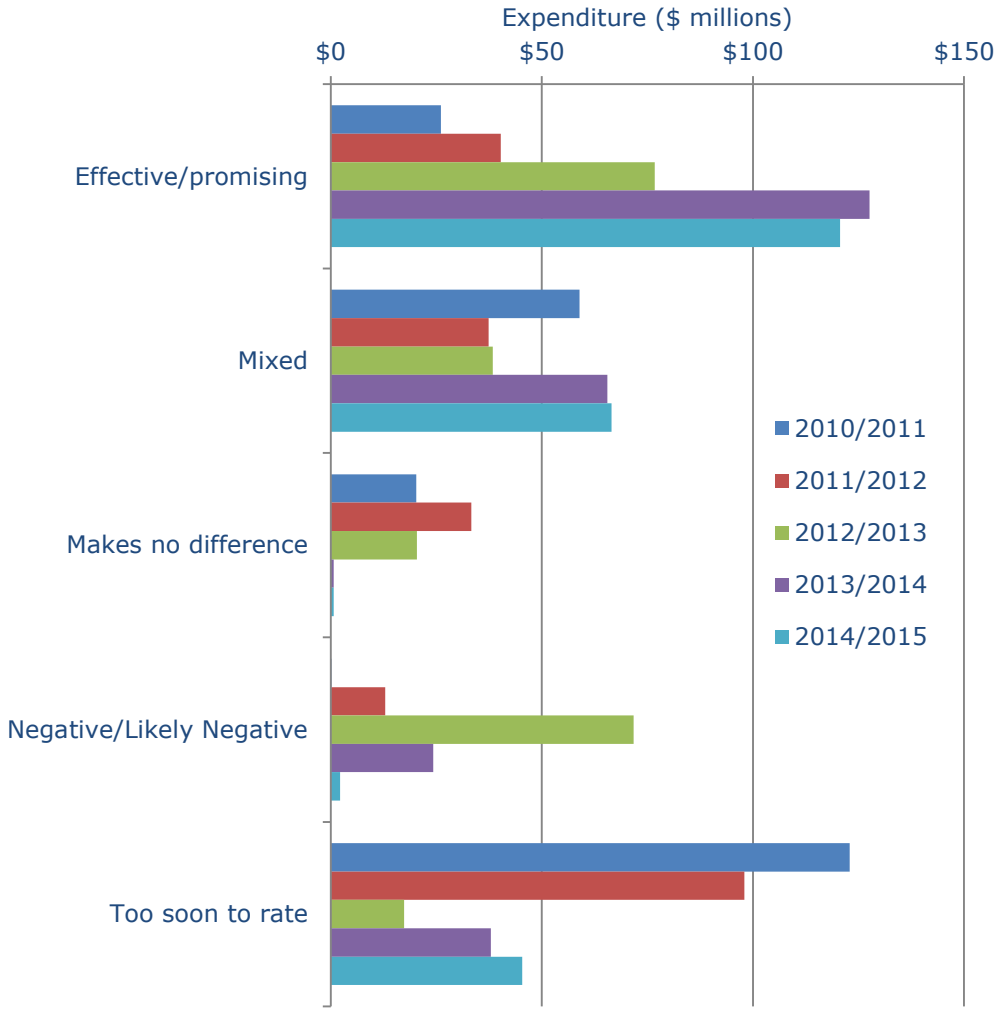
Effective: significant positive overall impact, **Promising**: expected to have a positive overall impact, **Mixed**: intervention has both positive and negative impacts, **Makes no difference**: makes no significant difference, **Likely negative**: expected to have a negative overall impact, **Negative**: significantly negative overall impact. Expenditure values are nominal.

Figure 2 (over the page) compares the effectiveness of EA expenditure over the financial years between 2010/2011 and 2014/2015. The main theme from Figure 2 is the continued shift in expenditure towards effective and promising EA interventions. The other category to expand is EA interventions having mixed effects. We attribute the growth in the mixed category to the inclusion of SNZ IDI outcomes into the analysis. We discuss the rating of individual EA interventions in the subsequent section. The expenditure on EA interventions that make no difference or have negative effects has fallen to very low levels.

Employment Assistance highlights

Table 1 shows effectiveness ratings for EA interventions funded in the 2014/2015 financial year. For detailed results on individual interventions, refer to Table 5 (page 19). Effectiveness is based on whether EA interventions improve participants' outcomes across three outcome domains: income, employment and independence from welfare.

Figure 2: Effectiveness rating of EA expenditure by financial year



Expenditure is in nominal dollars

Effective/Promising ($121 million)

Effective and promising EA interventions have overall positive impacts across the three main outcome domains. We can categorise effective EA interventions into three broad types.

- **Job placement interventions**: these include vacancy placement, hiring subsidies (Flexi-Wage (Basic/Plus)), self-employment assistance and training for pre-determined employment (Skills for Industry) and work experience.[7] We need to acknowledge that while job placement interventions are effective for participants they can have negative impacts for non-participants[8] that are not currently accounted for.

[7] While we rate work experience as effective in this report, the wRoI analysis of the programme indicates that it is not cost-effective (see Raubal, Judd & Stoner (2016) Benefit System Performance Report: for the year ended 30 June 2015, Ministry of Social Development, Wellington).

[8] These are substitution (a participant takes a vacancy that would have been filled by someone else) and displacement (subsidised labour can reduce employment among competing firms) effects.

- **Internally run intensive case management interventions:** these interventions involve case managers working with set caseloads. This group includes services such as Work Focused Case Management (General) and Work Search Support.
- **Work obligation focused interventions**: interventions that use work obligation requirements to ensure people are actively seeking employment and are entitled to income support. This group includes the 52-week reapplication for job seeker related benefits and the pre-benefit seminar WRK4U.

In addition to the above interventions, this is the first year we have included a training programme in the effective group. Training for Work ($33million) contracts short duration training courses for people who are likely to be on main benefit long-term. While effective overall, the gains to date are relatively modest for income and employment, with no significant increase in time off welfare assistance.

Table 1: Effectiveness rating for EA interventions funded in the 2014/2015 financial year

Effective/Promising ($121m)	Mixed ($66m)	Makes no difference ($0.7m)	Negative/Likely Negative ($2.2m)
Training for Work ($33m) Flexi-Wage (Basic/Plus) ($29m) Work Focused Case Management (General) ($25m) Skills for Industry ($12m) Work Search Support ($9m) Flexi-Wage Self Employment (subsidy) ($3m) Work and Income Vacancy Placement ($3m) WRK4U ($2m) Job Search Initiatives ($2m) Work Development Workshops ($1m) 52-week reapplication ($1m) New Initiative ($0.3m) Work Experience ($0.2m) Work Search Assessment Seminar ($0.1m)	Vocational Services Employment ($31m) Employment Placement or Assistance Initiative ($19m) Limited Services Volunteer ($8m) Course Participation Grant ($3m) Training Incentive Allowance ($3m) PATHS ($1m) Career Guidance and Counselling ($0.2m)	Outward Bound ($0.7m)	Health Interventions ($1m) Work and Income Seminar ($0.8m) Activity in the Community ($0.1m)

Table excludes interventions with less than $0.1m of expenditure in the 2014/2015 financial year.

Mixed effectiveness ($66million)

Mixed effectiveness rating includes interventions where we see both positive and negative impacts on the three primary outcomes (income, employment and independence from welfare).

The most common pattern of impacts for a mixed rating is for an intervention to show a positive impact on income and employment, but to have a negative impact on independence from welfare. Prominent interventions with this pattern of impacts include Employment Placement Initiative, Vocational Services Employment and Limited Services Volunteer. Table 5 (page 19) summarises the impact against each of these outcomes for all EA interventions funded in 2014/2015.

Ineffective expenditure (makes no difference, likely negative effectiveness) ($2.9million)

Expenditure on EA interventions that make no difference or result in worse outcomes (negative impacts) has decreased over the last five years. Work and Income Seminars have ceased as an intervention and is now incorporated into the Work Search Service which is rated as effective. Outward Bound, Activity in the Community and Health Interventions remain active programmes at this time.

The reduction in negatively rated EA intervention in 2013/2014 (Figure 2) occurred because Foundation Training Opportunities (FFTO) ceased. In 2009, a review of the earlier Training Opportunities programme concluded the programme was ineffective and poorly targeted. The decision was to split the programme into two, Training for Work and FFTO. Both programmes began in 2010/2011. However, we found the trend in FFTO's impact was the same as Training Opportunities and concluded FFTO was likely to have a similar impact to Training Opportunities over the long term. On this basis, the funding for FFTO ceased in 2013/2014.

EA interventions that have not been rated

It was not possible to evaluate the effectiveness of $272 million of EA expenditure in the 2014/2015 financial year (see Table 2). There are three reasons why we have not yet rated an EA intervention for its effectiveness:

- **Too soon**: we are in the process of evaluating the effectiveness of $45 million of EA interventions. However, at this time, it is too soon to determine whether these interventions are effective over the long-term.
- **Cannot be evaluated**: $223 million is on interventions that are implemented in such a way that it is not possible to estimate the difference they make. For example, Childcare Assistance is an entitlement-based programme. Therefore, everyone who would like to use Childcare Assistance can do so. As a result, there is no comparable group of non-participating parents to compare against. We also do not have a historical comparison group, as childcare assistance has been available since before our administrative records began in 1993.
- **Not completed**: the remaining expenditure ($4 million) includes EA interventions that we can feasibly evaluate, but we have not done so at this time. However, many of these EA interventions are small scale and it may not be worthwhile undertaking this work.

Majority of 'too soon to rate' EA interventions are unlikely to be effective

Although fewer than two years of results are available, we can examine the trends in the short-term impacts of the 'too soon to rate' EA interventions in Table 2. The current evidence indicates that most of these EA interventions will have either a mixed or a

negative rating in the next update to this report. In particular, the Youth Service[9] ($35million) and the recent Mental Health Employment Service Trial ($3.2million) are both unlikely to receive an 'effective' rating.

In both cases, Service Delivery is making changes to these interventions to try to improve their effectiveness. We will monitor the progress of these changes in subsequent reports.

Table 2: Employment interventions funded in the 2014/2015 financial year that have not been rated for effectiveness

Too soon to rate ($45m)	Cannot be rated ($223m)	Not completed ($4m)
Youth Service (NEET) ($20m)	Childcare Assistance ($183m)	Mainstream Employment Programme ($2m)
Youth Service (YP) ($9m)	OSCAR (subsidy) ($18m)	Migrant Employment Assistance ($0.8m)
Youth Service (YPP) ($6m)	Transition to Work Grant ($16m)	Work Ability Assessment ($0.3m)
Mental Health Employment Service Trial ($3m)	3K to Christchurch ($5m)	Proactive Work Focus ($0.2m)
Sole Parent Employment Service Trial ($3m)	In Work Support ($0.9m)*	Be Your Own Boss ($0.2m)
Work Focused Case Management HCD ($2m)		Information Services Initiative ($0.2m)
Work Focused Case Management Integrated Services (IS) ($2m)		Mental Health Coordination ($0.2m)
		Seasonal Work Assistance ($0.1m)

Table excludes interventions with less than $0.1m of expenditure in the 2014/2015 financial year.

*: This refers to the general In Work Support Assistance and not to the current IA In Work Support Trial that is currently being evaluated for its effectiveness.

Effectiveness of different types of EA interventions

In a new addition to the EA effectiveness report, we show the effectiveness rating by the type of EA interventions. Here we are broadening our scope to include all EA interventions delivered by MSD, not just those delivered in 2014/2015.

We have information on 248 individual EA interventions operating between 1990 and 2015. These range from large interventions such as Training Opportunities ($80 million pa, 1991-2009) through to small local pilots running for a couple of months. We group these interventions into broad categories reflecting how the intervention is expected to help improve participants' outcomes. For example, training programmes are based on the idea of improving participants' skills or qualifications to help improve their chance of gaining employment.

Of the 248 interventions that we have information on, we can rate the effectiveness of 67 interventions as shown in Table 3. See Table 7 (page 24) for more detailed breakdown of intervention types.

Of rated interventions, just under half (45 percent) are effective or promising. We also see substantial gaps in our knowledge of effectiveness for some intervention types. For example, we have no evidence on the effectiveness of interventions designed to help with transitioning to and retaining employment.

[9] The Treasury is currently conducting an independent evaluation of the effectiveness of the Youth Service and is due to report in the latter half of 2016.

Table 3: Effectiveness rating by type of EA interventions

Intervention type	Number	Rated	Effectiveness rating					
			Effective	Promising	Mixed	Makes no difference	Likely negative	Negative
Case Management	60	4	75%		25%			
Health Interventions	8	3			33%	33%	33%	
Vocational Services	2	1			100%			
Information services	12	4	25%		50%			25%
Work Confidence	20	7			29%	29%		43%
Training	20	9	22%		44%			33%
Work Experience	25	10	50%		30%			20%
Job search	26	13	23%	23%	8%		8%	38%
Job Placement	35	14	64%	21%	14%			
Work transition	15	0						
Work retention	16	0						
Other	9	2	50%			50%		
Total	**248**	**67**	**36%**	**9%**	**25%**	**6%**	**3%**	**21%**

Note the percentage values are based on the number of rated interventions. Due to rounding, percentage values may not add up to 100%

Note that the percentage values are based on a relatively small number of observations. This means the proportional mix of intervention effectiveness may show substantial shifts in future updates to this analysis.

Job Placement and case management are generally effective

Interventions that tend to improve participants' outcomes are concentrated around case management and job placement.

Variable effectiveness occurs for work experience, job search and information services interventions

Intervention types with a range of effectiveness ratings include work experience programmes and information services. When we look in more detail at these intervention types (see Table 7, page 24), we find that work experience with private sector firms is more likely to be rated as effective. On the other hand, community or environmental placements where participants remain on benefit tend not to be effective. For information services and job search type interventions, it is less clear what differentiates those that are effective and those that are not.

Traditional EA interventions such as training are generally not effective

So far, the current Training for Work programme is the only training programme that is effective in improving participants' overall outcomes.

Next steps

While an EA intervention may be rated as effective in this report, this does not necessarily mean the intervention has a positive Return on Investment. That is, the

value of its positive impacts outweighs its cost. For the 2015/2016 report, we intend to enhance the analysis by including two measures of cost-effectiveness:

- **Welfare Return on Investment (WRoI)**: for the first measure we compare the MSD cost of delivering EA interventions to the savings achieved through a reduction in welfare liability.[10] The goal of the WRoI is to provide an early indication of the likely long-term cost-effectiveness of the EA intervention.
- **Social Return on Investment (SRoI)**: the second measure takes a wider view of the social costs and benefits of EA interventions, for example, including the value to society of the employment, income, justice and education impacts of EA interventions.[11] The development of the SRoI will occur in collaboration with the Social Investment Unit to ensure consistency across the social sector in measuring and valuing social impacts.

[10] The analysis will be based on the work done by the MSD actuarial team to calculate the Welfare RoI. Results for a selected number of EA interventions are included in the most recent Benefit System Performance Report. Raubal, Judd & Stoner (2016) Benefit System Performance Report: for the year ended 30 June 2015, Ministry of Social Development, Wellington.

[11] For example, an increase in income has a fiscal benefit through tax, but more importantly additional income increases the welfare of the individual concerned, particularly if they are in poverty. It is the latter benefit that is reflected in a Social RoI.

Appendix 1: Effectiveness rating

We categorise the EA interventions based on whether the intervention had a positive impact[12] on participants' outcomes across three domains.

- **Employment**: the overarching goal of EA interventions is to increase the time participants spend in employment over the long-term. We use monthly and annual tax data from the SNZ IDI to identify periods of employment, including employment while on a main benefit.
- **Income**: we judge interventions to have a positive impact if they increase participants' income. For this outcome, we include net income from all sources (wage and salary, self-employment, income support and tax credits) using tax and income support payment data in the SNZ IDI.
- **Independent of Welfare**: alongside employment and income, most EA interventions are designed to increase the time that participants are independent of income support. In our analysis, we define independence as being off main benefit (eg Job Seeker Support, Sole Parent Support or Supported Living Payment) and no longer receiving employment assistance (eg a wage subsidy). In previous effectiveness reports, Independent of Welfare was our primary outcome measure and also our proxy for employment outcomes. However, with the inclusion of the SNZ IDI data, we can now measure employment directly.

Table 4: Definitions for the EA intervention effectiveness ratings

Rating		Definition
Effective	★★	The intervention has a statistically significant positive effect for the majority of primary outcomes (eg income, employment and independence from welfare) **and** no evidence of a negative impact on any primary outcome.
Promising	★	Trends in impacts indicate the intervention is likely to be effective over the long-term. In addition, we rate interventions as promising if we cannot evaluate the intervention directly, but where a very similar intervention is rated as effective.
Mixed	†	The intervention has both positive and negative impacts on primary outcomes. The most common case is where an intervention increases employment but has a negative impact on independence from welfare.
Makes no difference	○	The assistance makes no statistically significant difference for any of the primary outcomes.
Likely negative	✖	Trends indicate the intervention will have a negative impact on one or more primary outcomes and there is no evidence of a positive impact on any other primary outcome.
Negative	✖✖	The intervention has a statistically significant negative effect for the majority of primary outcomes **and** no evidence of a positive impact on any primary outcome.
Too early to assess	◶	There has not been enough time to observe the impact of the intervention. Typically, we do not rate an intervention until we have two years of outcome data available.
Unknown		We have not rated the effectiveness of the intervention.
Cannot be evaluated	⊘	It is not technically feasible to estimate the impact of the intervention.

[12] Impact in this report means the change in outcomes for people receiving the intervention relative to a similar group of people who do not participate.

Readers may be surprised that an intervention can increase time in employment but not alter the time off welfare assistance. Such a result can come about for two reasons.

- **Increased part-time work while on main benefits**: for certain types of benefits such as a Sole Parent Support, people can have a high level of part-time earnings without losing their benefit entitlement.
- **Change in off benefit destinations**: we have found that participants are more likely to exit benefit into employment than other outcome destinations. For example, EA interventions tend to reduce the time participants spend in prison.

The table below summarises how we rated the effectiveness of EA interventions across one or more of the above primary outcomes.

Table 5 shows the results for EA interventions funded in the 2014/2015 financial year. Alongside each intervention, the table provides the total expenditure on the intervention, the current rating, the method used to estimate the intervention's effectiveness and the impact against each of the main outcome domains we based the rating on. If the outcome is not shown in the Outcome Domain Impacts column then it is not currently available for that intervention and accordingly not used in assessing its effectiveness. A key for Table 5 is given at the end of the table.

Table 5: Effectiveness ratings for EA interventions funded in 2014/2015

Intervention	Expenditure (,000s)	Effectiveness Rating	Impact Method	Outcome Domain Impacts
3K to Christchurch	$4,632	Cannot be evaluated		
52 week reapplication	$1,308	Effective	PreP	IWI(++)
Activity in the Community	$125	Negative	PM	EMP(-)ERN(--)IWI(--)
Be Your Own Boss	$205	Not rated		
Career Guidance and Counselling	$208	Mixed	PM	EMP(++)ERN(-)IWI(--)
Childcare Assistance	$183,095	Cannot be evaluated		
Course Participation Grant	$3,476	Mixed	PM	EMP(++)ERN(++)IWI(-)
Employment Placement or Assistance Initiative	$19,410	Mixed	PM	EMP(++)ERN(++)IWI(-)
Flexi-Wage (Basic/Plus)	$29,177	Effective	PM	EMP(++)ERN(++)IWI(++)
Flexi-Wage Self Employment (subsidy)	$2,787	Promising	PM	IWI(++)
Health Interventions	$1,152	Likely negative	PM	EMP(0)ERN(0)IWI(--)
In Work Support	$920	Cannot be evaluated		
Information Services Initiative	$183	Not rated		
Job Preparation Programme	$76	Too soon to rate	PM	EMP(-)ERN(--)IWI(--)
Job Search Initiatives	$1,814	Promising	PM	EMP(++)ERN(0)IWI(+)
Limited Services Volunteer	$8,281	Mixed	PM	EMP(++)ERN(++)IWI(--)
Mainstream Employment Programme	$1,640	Not rated		
Mental Health Coordination	$199	Not rated		
Mental Health Employment Service Trial	$3,186	Too soon to rate	RCT	IWI(+)
Migrant Employment Assistance	$784	Not rated		
New Initiative	$329	Effective	PM	EMP(++)ERN(++)IWI(0)
OSCAR (subsidy)	$18,188	Cannot be evaluated		

Intervention	Expenditure (,000s)	Effectiveness Rating	Impact Method	Outcome Domain Impacts
Outward Bound	$702	Makes no difference	PM	IWI(0)
PATHS	$1,356	Mixed	PM	EMP(++)ERN(0)IWI(--)
Proactive Work Focus	$240	Not rated		
Seasonal Work Assistance	$104	Not rated		
Self Employment Initiative	$82	Not rated		
Skills for Industry	$12,423	Effective	PM	EMP(++)ERN(++)IWI(++)
Sole Parent Employment Service trial	$3,102	Too soon to rate	RCT	IWI(0)
Training for Work	$32,864	Effective	PM	EMP(++)ERN(++)IWI(0)
Training Incentive Allowance	$2,908	Mixed	PM	EMP(+)ERN(++)IWI(--)
Transition to Work Grant	$16,060	Cannot be evaluated		
Vocational Services Employment	$30,783	Mixed	PM	EMP(++)ERN(++)IWI(--)
WFCM for Young SLP	$46	Not rated		
Work Ability Assessment	$304	Not rated		
Work and Income Seminar	$795	Negative	PM	EMP(0)ERN(--)IWI(--)
Work and Income Vacancy Placement	$2,666	Effective	PM	EMP(++)ERN(++)IWI(++)
Work Confidence	$65	Mixed	PM	EMP(++)ERN(0)IWI(--)
Work Development Workshops	$1,124	Promising	PM	IWI(++)
Work Experience	$192	Effective	PM	EMP(++)ERN(++)IWI(++)
Work Focused Case Management (General)	$24,515	Effective	RCT	IWI(++)
Work Focused Case Management HCD	$2,271	Too soon to rate	RCT	IWI(+)
Work Focused Case Management Integrated Services (IS)	$2,055	Too soon to rate	RCT	IWI(+)
Work Focused Case Management Intensive Client Support (ICS)	$55	Not rated		
Work Preparation Services	$20	Not rated		
Work Search Assessment Seminar	$145	Promising	PM	IWI(++)
Work Search Support	$8,978	Effective	RCT	IWI(++)
WRK4U	$2,343	Effective	PreP	IWI(++)
Youth Seminar	$95	Negative	PM	EMP(-)ERN(--)IWI(--)
Youth Service (NEET)	$19,903	Too soon to rate	PM	IWI(--)
Youth Service (YP)	$8,892	Too soon to rate	PMTO	IWI(--)
Youth Service (YPP)	$5,870	Too soon to rate	PMTO	IWI(+)

Interventions: The table only shows interventions that had more than $10,000 in expenditure in the 2014/2015 financial year.

Impact method: RCT: randomized control trial design (SMS 5), PM: propensity-matched comparison group using MSD data (SMS 3), PMTO: propensity-matched comparison group selected from a different calendar period than the participants (SMS 3 (-)), PreP: Natural experiment comparing outcomes before and after the introduction of an intervention (SMS 3). Appendix 3 provides further detail on the relative robustness of each method.

Outcome domain: EMP: any employment, ERN: all income, IWI: independent of welfare.

Impact: ++: statistically significant positive impact, +: likely to have a positive impact, 0: no statistical difference in impact, -: likely to have a negative impact, --: statistically significant negative impact.

Effectiveness rating across annual reports

Table 6 summarises the effectiveness rating from each of the previous three annual reports and enables readers to compare how the rating has changed for each

intervention. To interpret the symbols in Table 6 refer to the effectiveness rating definitions in Table 4 (page 18). Where there is no symbol, this means the intervention was not rated in that year. Up to the current report (2016), effectiveness rating was primarily based on Independence of Welfare assistance.

Table 6: Effectiveness rating by annual report for interventions funded between 2010/2011 through to 2014/2015

		Effectiveness rating by assessment year			
Type	**Intervention**	**2012**	**2013**	**2014**	**2016**
Work transition	3K to Christchurch				⦸
Case Management	52-week reapplication		★★	★★	★★
Work Experience	Activity in the Community	✖✖	✖✖	✖✖	✖✖
Job Placement	Be Your Own Boss	⦸	⦸	⦸	
Job Placement	Business Training And Advice Grant	⦸	⦸	⦸	⦸
Job Placement	CadetMax	★	★	★	★
Information services	Career Guidance and Counselling	○	○	○	†
Case Management	Case Management Initiative	★★	†	†	†
Work retention	Childcare Assistance				⦸
Other	Christchurch Programme Boost	⦸	⦸	⦸	⦸
Other	Christchurch Rebuild	⦸	⦸	⦸	
Work Confidence	Commissioned Youth Action Training		⦸	⦸	
Other	Community Employment	⦸	⦸	⦸	○
Work Experience	CommunityMax	◶	✖✖	✖✖	†
Training	Course Participation Grant	○	○	○	†
Work Experience	Cycleways Project	⦸	⦸	⦸	
Information services	DPB 12 week seminar		○	⦸	†
Work retention	Earthquake Support Subsidy	⦸	⦸	⦸	
Job Placement	Employment Placement or Assistance Initiative	†	○	○	†
Job search	Employment Workshop		✖✖	✖✖	✖✖
Job Placement	Enterprise Allowance	★★	★★	★★	†
Job Placement	Flexi-Wage (Basic/Plus)			★	★★
Job Placement	Flexi-Wage Self Employment (subsidy)			★	★
Training	Foundation Focused Training	◶	◶	✖✖	✖✖
Health Interventions	Health Interventions		✖✖	✖✖	✖
Work transition	In Work Support		⦸	⦸	⦸
Information services	Information Services Initiative			◶	
Job Placement	Job For A Local	⦸		⦸	★★
Work Experience	Job Opportunities with Training	◶	◶	†	★★
Work Experience	Job Ops	◶	★	†	†
Job search	Job Preparation Programme		⦸	◶	◶
Job search	Job Search Initiatives	★★	†	†	★
Job search	Job Search Seminar			◶	
Job Placement	Jobs With A Future	★	★	★	★
Work Confidence	Limited Services Volunteer	○	○	✖✖	†
Job Placement	Local Industry Partnerships	★	★	★	★★
Work Experience	Mainstream Employment Programme	⦸	⦸	⦸	
Other	Mayor's Taskforce	⦸	⦸	⦸	

		Effectiveness rating by assessment year			
Type	**Intervention**	**2012**	**2013**	**2014**	**2016**
Health Interventions	Mental Health Coordination				
Job Placement	Mental Health Employment Service Trial				
Case Management	Migrant Employment Assistance				
Health Interventions	Mild to Moderate Mental Health Services				
Work transition	New Employment Transition Grant				
Other	New Initiative			†	★★
Work Confidence	Ngati Awa Service Academy				
Work retention	OSCAR (subsidy)				
Work Confidence	Outward Bound				
Health Interventions	PATHS			†	†
Case Management	Preparing for Work				
Case Management	Proactive Work Focus				
Job search	Recruitment Seminar			✖✖	✖✖
Work retention	Seasonal Work Assistance				
Job Placement	Self Employment Initiative				
Job Placement	Skills for Growth				
Job Placement	Skills for Industry			★	★★
Job Placement	Skills Investment	★★	★★	★★	★★
Training	Skills Training	†	†		★★
Job Placement	Sole Parent Employment Service trial				
Training	SPS Study Assistance				†
Job Placement	Straight 2 Work	★★	★★	★★	★★
Work Experience	Taskforce Green	★★	★★	★★	★★
Training	Training for Work			★	★★
Training	Training Incentive Allowance	†	✖✖	✖✖	†
Work transition	Transition to Work Grant				
Vocational Services	Vocational Services Employment	†	†	†	†
Case Management	WFCM for Young SLP				
Case Management	Work Ability Assessment				
Job search	Work and Income Seminar		✖✖	✖✖	✖✖
Job Placement	Work and Income Vacancy Placement		★★	★★	★★
Work Confidence	Work Confidence	†	†	†	†
Job search	Work Development Workshops			★★	★
Work Experience	Work Experience				★★
Case Management	Work Focused Case Management (General)				★★
Case Management	Work Focused Case Management (pilot)				★★
Case Management	Work Focused Case Management HCD				
Case Management	Work Focused Case Management Integrated Services (IS)				
Case Management	Work Focused Case Management Intensive Client Support (ICS)				
Other	Work Preparation Services				
Job search	Work Search Assessment Seminar			★★	★
Job search	Work Search Support				★★
Job search	Work Search Support (pilot)				★★

		Effectiveness rating by assessment year			
Type	**Intervention**	**2012**	**2013**	**2014**	**2016**
Information services	WRK4U	⊘	★★	★★	★★
Work Confidence	Youth Life Skills	⊘	⊘	⊘	
Information services	Youth Seminar			✖✖	✖✖
Case Management	Youth Service (NEET)			◶	◶
Case Management	Youth Service (YP)			◶	◶
Case Management	Youth Service (YPP)			◶	◶
Case Management	Youth Transitions Fund		⊘	⊘	
Case Management	Youth Transitions Services	⊘	⊘	⊘	

Interventions: The table only shows interventions that had more than $10,000 in expenditure in any of the financial years between 2010/2011 and 2014/2015.

Effectiveness by intervention type

Table 7 provides the effectiveness rating of all EA interventions broken down by the intervention type. Given the small numbers involved, this table provides a simple count of the EA intervention by rating.

Table 7: Effectiveness rating by intervention type

Intervention type	Total	Not rated	Effective/ Promising	Mixed	Makes no difference	Negative/Likely negative
Case Management: Assessment:Health and Disability	13	12		1		
Case Management: Assessment:Long-term unemployed	3	3				
Case Management:Contracted placements:Youth	2	2				
Case Management: Health and Disability	5	5				
Case Management: Individual accounts	7	7				
Case Management: Long-term unemployed	1	1				
Case Management:Migrants	3	3				
Case Management: One to one	3	3				
Case Management:Sole Parents	3	1	2			
Case Management:Work Obligations	3	3				
Case Management: Work Obligations: Health and Disability	8	7	1			
Case Management: Youth	1	1				
Health Interventions	8	8				
Vocational Services	8	5		1	1	1
Information services	1	1				
Information services: Career guidance	1	1				
Information services: Pre-benefit	2	1		1		
Information services: Seminar	2	2				
Work Confidence	7	4	1	1		1
Work Confidence: Cognitive Behavioural Therapy	6	5				1
Work Confidence: Residential training	1	1				
Work Confidence: Residential training: Military	3	3				
Work Confidence: Residential training: Outdoor	1			1		

Intervention type	Total	Not rated	Effective/ Promising	Mixed	Makes no difference	Negative/Likely negative
Work Confidence: Workshop	1				1	
Training	8	4		1	1	2
Training: Contracted training	2	1				1
Training:Contracted training:Literacy and Numeracy	8	5	2	1		
Training: Financial assistance	3	1				2
Training: On the job	6	3		3		
Job search	1	1				
Job search:Case management	7	5	1			1
Job search:Seminar	4	1	3			
Job search:Workshop	8	3	1			4
Job Placement:Contracted placements	7	4	1	1		1
Job Placement: Hiring Subsidy	4	3		1		
Job Placement:Self employment assistance	6	2	4			
Job Placement:Self employment assistance:Subsidy	1	1				
Job Placement:Self employment assistance:Training	5	3	1	1		
Job Placement:Training for pre-determined employment	2	2				
Job Placement: Work brokerage	13	7	6			
Work Experience: Community:Subsidy	4	3	1			
Work Experience:Community:Unsubsidised	7	4	2	1		
Work Experience: Subsidy	9	6		1		2
Work Experience:Unsubsidised	6	3	2	1		
Work transition	3	2	1			
Work transition: Financial assistance	2	2				
Work transition: Financial incentive	6	6				
Work transition:Mentoring	1	1				
Work transition:Seminar	5	5				
Work retention:Childcare assistance:Financial client	1	1				
Work retention: Childcare assistance: Financial provider	7	7				
Work retention: Financial assistance	2	2				

Intervention type	Total	Not rated	Effective/ Promising	Mixed	Makes no difference	Negative/Likely negative
Work retention:Financial assistance:Children	1	1				
Work retention:Mentoring	1	1				
Work retention:Subsidy	2	2				
Work retention: Training assistance	2	2				
Other: Community Development	1	1				
Other: Health Interventions	3	2			1	
Other: Initiatives	1	1				
Other:Initiatives:Sole parents	2	1	1			
Other: Package	1	1				

Appendix 2: Cost of EA interventions

Working out the full cost of EA interventions is not straightforward. While some EA costs can be easily identified, such as contract payments or subsidy amounts, others are more difficult to work out. Examples of the latter include the cost of making a referral or setting up a vacancy placement.

MSD operates a Cost Allocation Model for Service Delivery (SD-CAM) to estimate the cost of the individual outputs delivered by Service Delivery, including EA interventions. We define an output as an activity or service that is delivered to clients of Service Delivery. For example, an output can be a seminar or grant of a main benefit. The full outline of how the CAM operates is provided in the SD-CAM technical report.[13]

In brief, the CAM splits the cost of each Service Delivery output into a set of cost components (components are defined as specific tasks that are involved in delivering an output). For example, a wage subsidy placement would include five components: referral, vacancy placement, subsidy amount, subsidy administration and overhead. The CAM allocates the costs to each of these components based on financial and output information and the sum is the full cost of the wage subsidy placement.

Currently, we update the CAM every financial year. In these updates, we include additional expenditure and outputs of the new financial year, but we also make updates to the process of allocating costs in light of better information or better understanding of where costs should be allocated. Any change to the cost-allocation model itself is applied to all financial years from 2001/2002 onwards to ensure comparability of results over time. However, this retrospective updating of cost allocations means it is not possible to compare individual EA intervention costs between EA effectiveness annual reports.

Changes since 2014 EA effectiveness report

We have made a substantive change to the SD-CAM since the last EA effectiveness report. In 2014, the Service Delivery departmental costs were all allocated to frontline staff time. As a result, the cost of staff time was around one-third salary and related costs and two-thirds overheads (ie property, management, IT systems, National Office services). In the current SD-CAM we have removed the overhead cost to staff time and instead allocated Service Delivery overheads across all outputs, not just those involving staff time.

For EA interventions, this change to the treatment of Service Delivery overhead costs has substantially reduced the average cost of internally delivered EA interventions. For example, in the 2014 version of the report, the total cost of vacancy placement services in 2012/2013 was $19.4 million,[14] in the current report the cost of vacancy placement services in 2012/2013 is now $4.2 million.

The motivation for this change in how we allocate overhead costs was twofold. The first reason was that allocating overhead costs to staff time implied that all outputs that did not involve staff time had an effective cost of zero. This is clearly incorrect. While

[13] MSD (2016) Service Delivery Cost Allocation Model: Technical report, Ministry of Social Development, Wellington (EDRMS id: A8651959).

[14] Table 1 (page 8) in MSD (2014) Cost-effectiveness of MSD employment assistance: summary report fro 2012/2013 financial year, Ministry of Social Development, Wellington (EDRMS id: A7973628).

automated processes such as payment of income support benefits and self-service transactions have a much lower cost than if they had been done by staff, there is still a cost in delivering these outputs. Correctly allocating overhead between automated and non-automated processes has not been fully resolved and may result in changes in the treatment of overhead costs in subsequent reports.

The second reason for the change in the treatment of overheads centres on looking at the cost of outputs from a marginal rather than average cost perspective. The amount of money available to reallocate to other EA interventions is the marginal cost (eg staff time delivering the intervention). On the other hand, the overhead costs tend to be more fixed over the short-term at least. For example, if Service Delivery stops delivering an in-house seminar, the reduced costs only relate to the staff time in delivering the seminar, and not the overhead costs.

Table 8 shows the estimated total cost of EA interventions from 2012/2013 onwards based on the 2016 Service Delivery Cost Allocation Model. The expenditure is in nominal dollars (ie has not been adjusted for inflation).

Table 8: EA intervention expenditure (in '000's) by financial year

Intervention	2012/2013	2013/2014	2014/2015
Total	**$474,128**	**$495,870**	**$462,134**
3K to Christchurch			$4,632
52 week reapplication	$1,120	$1,410	$1,308
Activity in the Community	$170	$84	$125
Be Your Own Boss	$223		$205
Career Guidance and Counselling	$124	$216	$208
Childcare Assistance	$185,979	$185,596	$183,095
Christchurch Programme Boost	$27		
Course Participation Grant	$2,889	$3,597	$3,476
Employment Placement or Assistance Initiative	$16,229	$16,989	$19,410
Employment Workshop	$610		
Flexi-Wage (Basic/Plus)	$24,111	$30,039	$29,177
Flexi-Wage Self Employment (subsidy)	$1,185	$1,563	$2,787
Foundation Focused Training	$55,066	$23,454	
Health Interventions	$57	$70	$1,152
In Work Support	$210	$1,754	$920
Information Services Initiative	$41		$183
Job Preparation Programme	$403	$153	$76
Job Search Initiatives	$2,259	$1,157	$1,814
Jobs With A Future	$75		
Limited Services Volunteer	$7,579	$8,309	$8,281
Local Industry Partnerships	$67	$72	
Mainstream Employment Programme	$4,052	$3,322	$1,640
Mental Health Coordination		$668	$199
Mental Health Employment Service Trial		$1,503	$3,186
Migrant Employment Assistance	$1,381	$766	$784
New Employment Transition Grant	$111	$128	
New Initiative		$111	$329
OSCAR (subsidy)	$16,795	$19,396	$18,188
Outward Bound	$632	$660	$702
PATHS	$2,949	$1,659	$1,356

Intervention	2012/2013	2013/2014	2014/2015
Total	**$474,128**	**$495,870**	**$462,134**
Preparing for Work	$205	$33	
Proactive Work Focus	$2,050	$475	$240
Recruitment Seminar	$606	$15	
Seasonal Work Assistance	$298	$312	$104
Self Employment Initiative	$93	$39	$82
Skills for Growth	$743		
Skills for Industry	$15,075	$13,960	$12,423
Skills Training	$141	$68	
Sole Parent Employment Service trial		$1,409	$3,102
SPS Study Assistance		$357	
Training for Work	$28,730	$34,356	$32,864
Training Incentive Allowance	$4,709	$3,440	$2,908
Transition to Work Grant	$21,197	$25,968	$16,060
Vocational Services Employment	$33,136	$30,959	$30,783
WFCM for Young SLP			$46
Work Ability Assessment			$304
Work and Income Seminar	$2,236	$600	$795
Work and Income Vacancy Placement	$4,206	$3,475	$2,666
Work Confidence	$43	$17	$65
Work Development Workshops	$57	$900	$1,124
Work Experience	$361	$356	$192
Work Focused Case Management (General)		$27,038	$24,515
Work Focused Case Management (pilot)	$3,296		
Work Focused Case Management HCD		$1,731	$2,271
Work Focused Case Management ICS			$55
Work Focused Case Management IS		$1,725	$2,055
Work Preparation Services			$20
Work Search Assessment Seminar	$41	$111	$145
Work Search Support		$10,630	$8,978
Work Search Support (pilot)	$3,864		
WRK4U	$2,068	$2,333	$2,343
Youth Seminar	$733	$44	$95
Youth Service (NEET)	$9,133	$17,955	$19,903
Youth Service (YP)	$3,835	$7,574	$8,892
Youth Service (YPP)	$3,925	$5,897	$5,870
Youth Transitions Services	$9,005	$1,421	

Interventions: we excluded any interventions with less than $10,000 in all of the financial years in the above table.

Appendix 3: Technical notes

This section provides more detail on the following:

- the outcomes measures used in the analysis
- methods used to estimate the impact of interventions
- a method for estimating unobserved future impacts
- the process used to rate the effectiveness of interventions.

Outcome measures

In the current effectiveness report, we measured the impacts of EA interventions across a range of outcome domains. Here we describe each outcome measure and how it was constructed.

Income

Net income from all sources

Net income from all sources is the main income outcome. It includes all sources of income but excludes the drawdown of student loans. Income is net of tax. The measure was based on Inland Revenue (IR) and MSD data provided to the Statistics New Zealand Integrated Data Infrastructure (SNZ IDI). Current income information includes:

Employer Month Schedule (EMS): New Zealand operates a Pay As You Earn tax system. Accordingly, all employers provide IR with monthly schedules of the earnings of all their employees. In addition to employee earnings, the EMS also includes taxable income support, Accident Compensation Corporation (ACC) and pension payments.

Self-employment and company earnings: people who run their own business or company are also required to file annual tax returns. In the analysis, these annual returns are converted into monthly spells with annual total split equally across these months. There can be considerable lags in the lodging of self-employment earnings, that can mean measures of income for the most recent periods underestimate actual income. Note, however, because we update the analysis on a regular basis the results incorporate these lags in reported earnings in subsequent updates.

Non-taxable income support payments: not all income support payments are subject to tax. In particular, second tier assistance such as the Accommodation Supplement and a third tier or hardship assistance such as Emergency Food Grants are not taxed. For hardship payments, we exclude recoverable assistance, as these are advances on main benefits. Recoverable payments will either be reflected in lower main benefit payments, or, if the person moves off main benefit, in the form of an income support debt. At present, we do not have reliable data on income support debt.

Employment

Any time in employment

Employment is based on the period that people declare income from employment or from self-employment. Note that employment spells are based on either monthly or annual periods so we may be over or understating the actual time a person is in employment depending on where in the month or tax year they started employment. At

present, we have not attempted to adjust for this (eg looking at the following or subsequent month to identify the likely start and end periods).

There are also lags in lodging tax returns, with these most pronounced for annual returns. We choose not to censor our analysis period to accommodate these lags and instead rely on regular updates to the analysis to incorporate delayed tax data into the results.

Independent from Welfare

Independent of Work and Income Assistance

We measured the time people are dependent on welfare assistance by the period they were entitled to a main benefit and whether they were participating in EA interventions. The inclusion of the latter is to cover instances where people are receiving employment assistance while off main benefit (eg a wage subsidy).

A limitation of this measure is that it fails to account for negative destinations. For example, people who move from main benefit into prison would appear to be off welfare assistance. In subsequent versions of this report, we plan to include time in correctional services as well as other negative destinations into this measure.

Effectiveness rating

Rating the effectiveness of EA interventions is a three-step process. The first step is to estimate the observed impact of an intervention on participants' outcomes to date. The second step is to estimate the long-term impact based on observed short and medium term impacts. The final step is to apply standard rules to determine the effectiveness rating of each intervention.

Estimating the observed impact of EA interventions

The first step in rating the effectiveness of EA interventions is to determine the impact of EA interventions on outcomes to date. In this analysis, we estimate effectiveness using counterfactual designs. The term counterfactual refers to the question: what would have happened in the absence of the intervention?[15] By definition, it is not possible to observe the counterfactual outcomes of participants. The solution is to identify a proxy for the counterfactual, usually a group of non-participants whose outcomes we use for comparison purposes. The challenge is to ensure that the comparison outcomes are an accurate representation of participants' counterfactual outcomes. Specifically, other than programme participation, are there other reasons for any differences between the outcomes of participants and those of the comparison group (ie selection bias)?

Various methods are able to control for selection bias to a greater or lesser degree. To assist readers in judging the robustness of a particular counterfactual design, we categorise methods according to the Scientific Maryland Scale (SMS). The SMS scale ranks counterfactual designs from 1 (least robust) to 5 (most robust). Robust in this context refers to the level of confidence we have that the impact estimate of a design

[15] It is important to emphasise that counterfactual designs are not the only or primary evaluation method. To fully understand the effect of an intervention requires both quantitative estimation of its impact on outcomes, but equally important is information on the context and the operation of the intervention itself to understand why the intervention has the impacts that it does.

provides an accurate measure of the quantitative causal effect of the intervention on the outcome.

In the current report, we have four designs: randomised control trial (SMS 5), propensity-matched comparison group (SMS 3), propensity-matched historical comparison group (SMS 3(-)) and natural experiments (SMS 3) designs. We outline each in turn.

Randomised Control Trial designs

Randomised Control Trial (RCT) designs are the most robust counterfactual designs as they require the fewest assumptions and therefore can make the strongest quantitative statements about the causal relationship between intervention and outcomes. RCTs in the context of MSD EA interventions have been used most extensively to evaluate the impact of case management services such as Work Focused Case Management or Investment Approach Trials.

Propensity matching

Propensity matching is the main method we use to estimate the impact of EA interventions. Propensity matching is a common alternative to randomisation. It estimates the counterfactual by constructing a matched group of non-participants who have the same (or similar) characteristics as the participants.

Before outlining propensity matching, it is useful to think of an intuitively appealing alternative of exact matching. Exact matching, as the term suggests, is to match a participant to a comparison who has the same characteristics (eg same age, gender, benefit history and so on). However, exact matching is limited by the probability that two people share the same set of observable characteristics (and is also unnecessarily restrictive).[16] The more characteristics included in the exact match, the less likely it is to find a comparison person with the exact same characteristics for each participant. As a result, these methods require the arbitrary selection of only a few matching variables.

Propensity matching overcomes this problem by using a logistic regression model to relate observable characteristics to programme participation. The logistic regression produces an estimate of the probability that a given individual is a participant in a programme. It is possible to use this probability (called "the propensity score") to match participants and non-participants based on the similarity of their propensity scores. If the propensity score is properly specified, the participants and matched comparison groups will have a similar observable characteristic profile (eg similar duration, benefit type, age, the number of children).

Conditional Independence Assumption

The Conditional Independence Assumption (CIA) states that controlling for differences in observable characteristics between the participant and comparison groups also controls for unobserved differences between the two groups. Estimating the impact by controlling for observable characteristics requires that the CIA holds. If it holds, the only statistically significant difference between the participant and comparison groups will be their participation in the programme. Any resulting estimates would be unbiased. In other words, the only explanation for differences in outcomes between the two groups would be whether they participated in the programme. If the CIA fails, the estimates will be

[16] Within a randomised control trial, the treatment and control groups share the same statistical profile, not that each treatment group member has an identical twin in the control group.

biased. Here differences in outcomes could be due to unobserved differences between participants and their comparisons, as well as the impact of the programme.

The main limitation of the propensity matching method is that it relies on available and measurable information about people likely to participate in the EA intervention. It is rare that comprehensive information exists about the types of people who participate in the programme or those who could form part of the comparison group. The analysis relies on the information available on MSD's administrative databases. This increases the risk of biased estimates. The second limitation of the CIA is that it is not possible to determine whether it has been violated or, if it has, to what extent.

Table 9 summarises the variables included in the propensity matching. The emphasis is on historical variables and, in particular, the four years prior to the start date.[17]

Table 9: Observable characteristics included in the propensity matching of the comparison group

Area	*Variable*	*Presentation of variable in the analysis*
Demographics	Gender	Female, Male
	Age	Age in years
		Age group (16–<18 yrs, 18–<20 yrs, 20–<25 yrs, 25–<30 yrs, 30–<35 yrs, 35–<40 yrs, 40–<45 yrs, 45–<50 yrs, 50–<55 yrs, 55–<60 yrs, 60–<65 yrs)
	Ethnicity	Māori, NZ European, Pacific people, Other, Unspecified
Residency	Migrant	Yes, No
	Current Migrant	Yes, No
	English preferred	Yes, No
	Refugee	Yes, No
	Time in NZ	1–2 yrs, 3-8 yrs, 8–12 yrs, 12+ yrs, New Zealand
Labour market skills	Education	None; NCEA Lvl 1, <80 credits, NCEA Lvl 1, 80+ credits; NCEA Lvl 2; NCEA Lvl 3; Other school qualifications; NCEA Lvl 4; Post-secondary; Degree/prof qualifications
	Numeracy literacy barrier	Yes, No
	Language verbal barrier	Yes, No
	Income in six months prior to benefit commencement	No income, Under $250, $250 to $499, $500 to $749, $750 to $999, Over $1,000
Family status	Individual has an identified partner	Yes, No
	Age of youngest child	0–5 yrs, 6–13 yrs, 14+ yrs, No child
	Number of children	Categorical (ie No child, 1 child, 2 children, etc)
Health and disability	Employment barriers identified: Disability, Alcohol and drug, Intellectual, Mental illness, Mobility and agility, Sensory, Unspecified (7 variables)	Yes, No
	Number of current incapacities	0 incapacity, 1 incapacity, 2 incapacities, 3 incapacities, 4 incapacities
	Primary incapacity	Unspecified, No incapacity, Cancer, Intellectual, Schizophrenia, Congenital,

[17] Start date refers to the date participants commenced the programme (the actual date is usually three days prior to recorded participation start) or the date the non-participants were selected for inclusion in the comparison group.

Area	*Variable*	*Presentation of variable in the analysis*
		Alcohol, Anxiety, Anxiety Depression, Circulatory NFD, Circulatory Other, Depression, Diabetes, Drugs, Endocrine Other, Heart Disease, Infectious Parasitic, Mental Other, Nervous Epilepsy, Nervous Other, Non-Organic Psychoses NFD, Stress, Nervous Hearing, Nervous Sight, Stroke, Blood Diseases, Mental NFD, Bipolar, Genitourinary, Injury NFD, Injury Other, Musculoskeletal NFD, Respiratory NFD, Vertebral Column, Skin, Digestive, Musculoskeletal Other, Pregnancy Normal, Pregnancy Complications, Arthropathies Osteopathy, Fractures Dislocations, General, Respiratory COPD, Rheumatism Not Back, Strains Sprains, Respiratory Other
	Current incapacity 1 to 4 (4 variables)	Same as primary incapacity
	Identified incapacity in the previous five years: Unspecified, No incapacity, Cancer, Intellectual, Schizophrenia, Congenital, Alcohol, Anxiety, Anxiety Depression, Circulatory NFD, Circulatory Other, Depression, Diabetes, Drugs, Endocrine Other, Heart Disease, Infectious Parasitic, Mental Other, Nervous Epilepsy, Nervous Other, Non-Organic Psychoses NFD, Stress, Nervous Hearing, Nervous Sight, Stroke, Blood Diseases, Mental NFD, Bipolar, Genitourinary, Injury NFD, Injury Other, Musculoskeletal NFD, Respiratory NFD, Vertebral Column, Skin, Digestive, Musculoskeletal Other, Pregnancy Normal, Pregnancy Complications, Arthropathies Osteopathy, Fractures Dislocations, General, Respiratory COPD, Rheumatism Not Back, Strains Sprains, Respiratory Other	Yes, No
	Invalid's Benefit reassessment period	Never, 2 years, 5 years, Not indicated, Not applicable
	Medical assessment of time until part-time work	Now, <1 month, 1-<3 month, 3-<6 months, 6 or more months, Unlikely in the foreseeable future, No indication, Not applicable.
	Medical Assessment of time to selected duties	
	Medical Assessment of time to work planning	
Labour market context	Territorial local authority area	64 categories
	Work and Income region	12 categories
	Quarter of start date	2004Qtr1, 2004Qtr2, 2004Qtr3, etc
Other	Ex-prisoner	Yes, No
	Time since last prison event	No duration, < 3 months, 3-6 months, >6 mths-1 yr, >1-2 years, >2-3 years, >3-4 years, >4-5 years, >5-6 years, >6-8 years, >8-10 years, Over 10 yrs
Independence from Work and Income Assistance	Dependent on Work and Income Assistance in each of the 48 months prior to start date (48 variables)	Yes, No
Benefit information	Current benefit	Unemployment/Jo Seeker/Youth related, Domestic Purposes/Widow's/Emergency/Sole Parent Support, Sickness/Job Seeker Health Condition or Disability, Invalid's/Supported

Area	*Variable*	*Presentation of variable in the analysis*
		Living Payment, Supplementary only, No benefit
	Primary status	Primary, Partner, Single
	Current benefit status	Current, Cancelled, Suspended, Registered, No benefit
	Duration on current benefit	Categorical (<=3 months, >3–6 months, >6–12 months, >1–2 years, >2–4 years, >4–6 years, >6–8 years, >8–10 years, Over 10 yrs, No duration)
	Continuous duration on benefit	Continuous (days)
	Duration off-benefit	Categorical (<=3 months, >3–6 months, >6–12 months, >1–2 years, >2–4 years, >4–6 years, >6–8 years, >8–10 years, Over 10 yrs, On benefit)
		Continuous (days)
	Last benefit	On benefit, Unemployment/Jo Seeker/Youth related, Domestic Purposes/Widow's/Emergency/Sole Parent Support, Sickness/Job Seeker Health Condition or Disability, Invalid's/Supported Living Payment, Supplementary only, No benefit
	Years on main benefit over previous 10 years	Categorical (0 years, <1 year, 1 year, 2 years, …, 10 years)
	OnBenAt18	Yes, No, Too old
	Benefit status in each of the 48 months prior to start date (48 variables)	Unemployment/Jo Seeker/Youth related, Domestic Purposes/Widow's/Emergency/Sole Parent Support, Sickness/Job Seeker Health Condition or Disability, Invalid's/Supported Living Payment, No benefit
	Duration on each main benefit group: Unemployment/Independent Youth, Domestic Purposes/Emergency, Widow's, Sickness, Invalid's	Categorical (<=3 months, >3–6 months, >6–12 months, >1–2 years, >2–4 years, >4–6 years, >6–8 years, >8–10 years, Over 10 yrs, No duration)
		Continuous (days)
Register duration	Current register duration (if participated before 2007)	Categorical (<=3 months, >3–6 months, >6–12 months, >1–2 years, >2–4 years, >4–6 years, >6–8 years, >8–10 years, Over 10 years, Unspecified)
		Continuous (days)
Employment programme participation	Current participation in: Into-work support, Job search, Matching and placement, Training, Wage subsidy, Work confidence, Work experience, Other (8 variables)	Yes, No
	Participation in the previous 5 years in: Into-work support, Job search, Matching and placement, Training, Wage subsidy, Work confidence, Work experience, Other (8 variables)	No participation, Under 1 month, 1 to 3 months, 3 to 6 months, 6 months to 1 year, 1 to 2 years
	Programme participation in each of the 48 months prior to start date (48 variables)	Into-work support, Job search, Wage subsidy, Work confidence, Work experience, Training, Matching and placement, Other, No participation
Participation in tertiary study	Received student loans or allowances in each of the 48 months prior to start date (48 variables)	Yes, No
	Proportion of time receiving student loans and allowances in last 5 years or since 2000	Categorical (0 years, <1 year, 1 year, 2 years, …, 5 years)

Area	*Variable*	*Presentation of variable in the analysis*
Part-time work	Average weekly declared earnings in each of the 48 months prior to start date (96 variables)	Categorical (No income, >$0–$80, >$80–$180, >$180–$300, >$300) Continuous (nearest dollar)

Propensity score matched historical comparison group

For two EA interventions (Youth Service Youth Payment, Youth Service Young Parent Payment) there was not contemporary non-participant population. Instead, the analysis constructed a propensity-matched

Natural experiments

Natural experiments are instances where an EA intervention is introduced in such a way that we have a natural comparison group. The key assumption of natural experiments is that the introduction of an EA intervention is unrelated to differences in future outcomes between participants and comparisons in the absence of the intervention or, if any differences do exist, they can be controlled for. For example, in the current EA report, we used a natural experiment to evaluate the impact of the 52-week reapplication process on exits from benefit and how soon affected people returned to benefit. We used information on the behaviour of job seekers in the years before the introduction of the 52-week reapplication process to provide a baseline comparison for those affected by the new policy. Because the policy was introduced nationally, we had to include labour market measures into the analysis to help control for changes in labour market conditions before and after the introduction of the 52-week reapplication process.

Likewise, we evaluated the impact of the Wrk4U seminar by comparing the behaviour of job seekers in three trial sites before and after the intervention as well as the behaviour of job seekers in non-trial sites before and after the intervention.

Estimating total impact from observed impact

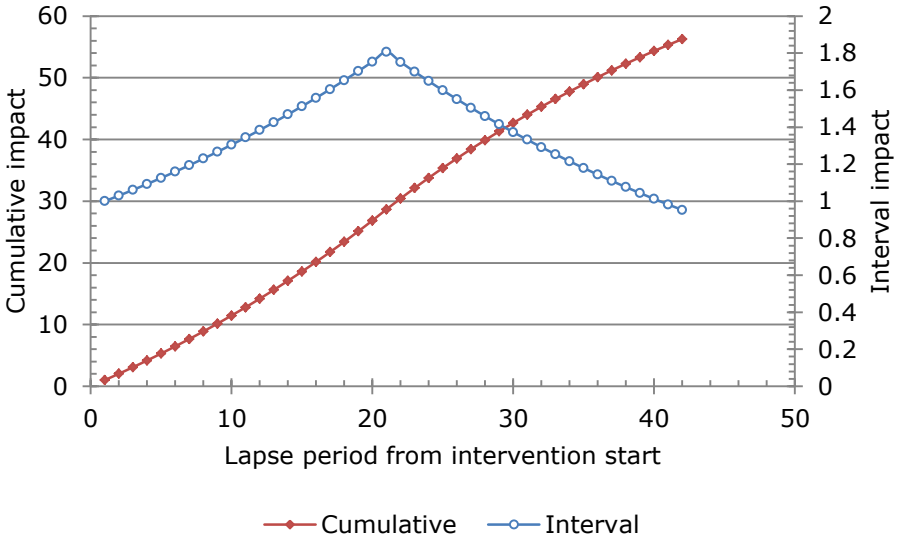
The second stage in rating an intervention's effectiveness is to estimate the total long-term impact of an intervention based on its observed short-term impact. There are two reasons for doing this. The first is that impacts on participants' outcomes often occur years and even decades after they participated in the intervention. The second reason is that EA interventions often have negative short-term impacts, such as lock-in effects,[18] while positive impacts occur over the medium to long-term. Taken together, if we judge EA intervention effectiveness over a too short follow-up period, we are more likely to rate the intervention as ineffective by including short-term negative impacts and failing to include potential long-term positive impacts.

Figure 3 gives a stylised example of this problem. For the hypothetical EA intervention's impact on time off main benefit, Figure 3 shows the interval impact (which is defined as the impact **within** a particular lapse period) steadily increasing until month 21 after intervention start before it begins to fall. For example, at month 21, the difference in time off benefit between the participant and control group is 1.75 days. The cumulative impact, on the other hand, is the difference in the outcome since participation start (this

[18] Lock in refers to the phenomenon that, while on the intervention, participants are less likely to move into employment than the comparison group. As a result, when participants finish an intervention, their average time on benefit is longer than that of the comparison group. Therefore, if the intervention increases their employment prospects at completion it still takes time after completion before the intervention has a cumulative positive impact.

measure is a cumulative sum from participation start up to a given lapse period). To continue the above example, the difference in cumulative time off benefit at month 21 is 30.43 days (ie the sum of all the interval impacts up to and including month 21).

Figure 3: Stylised example of the relationship between interval and cumulative impact on time off benefit



Turning our attention to the last data point in Figure 3 (month 41), we can see that the interval impact is greater than zero (impact: 0.95 additional days off benefit in month 41). What this tells us is that we have not seen the full impact of the intervention on time spent off main benefit. This occurs when the interval impact converges to zero.

The challenge in this analysis is to estimate the unobserved interval impact to be able to get an estimate of the full cumulative impact on participants' outcomes. We do this using a three-step process:

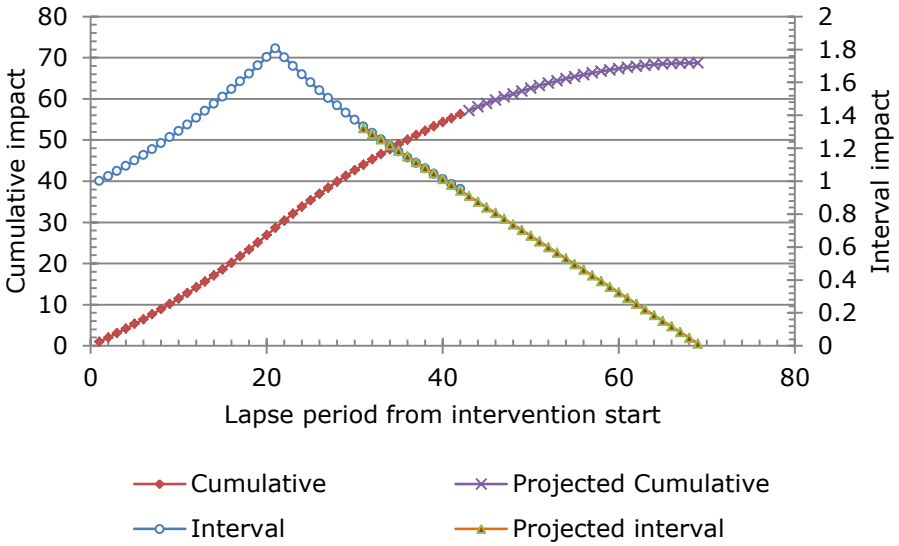
1. Based on the entire participant group, we project the interval impact until it converges on zero. If the natural trend is not towards zero, we force it to do so.
2. Using the projected interval impact we calculate the projected cumulative impact (ie add up each projected impact over successive lapse periods).
3. Using the projected cumulative impact results from step 2, we add the trend in cumulative impact to the observed impact with appropriate scaling if required.

Below is a more detailed outline of each of the above steps.

Step 1: Estimate the expected interval impact

The first step is to estimate the trend in the interval impact (Projected interval line in Figure 4). We use the last 12 observed impact intervals and take a least squares regression estimate of the interval impact by interval duration. We run the regression model estimates through to unobserved lapse periods until the interval impact reaches zero. We discuss below how we handle instances where the interval impact is trending away from zero.

Figure 4: Stylised example for projecting the interval impact



Step 2: Calculate the projected cumulative impact

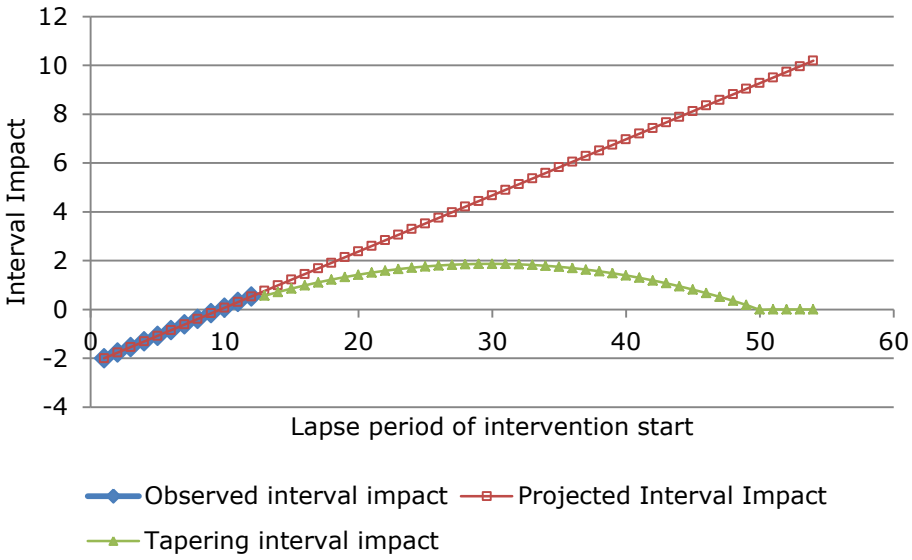
The second step as shown in Figure 4 is to take the last observed cumulative impact and add the projected future interval impacts to construct the projected cumulative line shown in the graph. We stop adding the projected interval impacts when the last interval impact is zero (this occurs at lapse period 68 on the graph). We have estimated the expected full impact of the intervention once this occurs. In this example, we estimate the full impact is likely to be observed after 68 months; at this point, the full impact of the intervention is estimated to be 68.73 days.

Interval impacts that do not trend towards zero

In practice, we find a number of instances where the projected impact either trends away from zero (resulting in infinitely large impacts) or are constant over time (this result is more plausible). In both these instances, we have chosen to force the interval impacts to zero. Our main motivation for this decision is to ensure that the resulting estimates are plausible and to limit the influence of projected impacts on the analysis.

Our method for forcing projected interval impacts to zero is by applying a proportional decrease in the interval impact from the first projection interval. In other words, the interval impact is reduced by a set proportion, with this proportion increasing as the projected period increases (so that the reduction eventually reaches 100 percent). Figure 5 illustrates how the forced taper would apply to an increasing projected interval impact. As the projection period increases the proportional reduction increases forcing the projected interval impact to eventually decrease to zero. In the current analysis, the proportional reduction increases at a linear rate of 0.05 percent for each day of the projection period.

Figure 5: Forced taper in the projected impact of an intervention



Step 3: Project cumulative impact from observed cumulative impact

The final stage in estimating the projected impact for an EA intervention is to take the last observed cumulative impact and then include the projected cumulative impact. Here we face two issues that need to be addressed:

- scaling the interval impact to the cumulative impact for each EA intervention participant group
- estimating the confidence interval for the projected impact.

Scaling interval impacts

For each EA intervention group, we compare the last 12 observed interval impacts to the series of projected impacts and calculate the ratio between the two. For example, if a particular EA intervention group is showing higher observed impacts than the projected then the ratio would be greater than one. From these last 12 intervals, we calculate the average ratio and then scale projected interval impacts by this ratio. Once scaled we can then add each projected interval impact to the last observed cumulative impact to arrive at the total cumulative projected impact.

Confidence interval for projected impact

The second issue is to provide an estimate of the confidence interval for the projected cumulative impact. There are two sources of uncertainty for the projected impact:

- the observed impact has a given intrinsic level of uncertainty
- the projected interval impact is itself also an estimate with its own level of uncertainty.

In the current analysis, we only include the uncertainty from the first source. We plan to look at including the uncertainty introduced through the projection process itself in later updates. Therefore, the confidence intervals for the projected impact understate the true uncertainty for these estimates.

To reflect the confidence intervals for the observed impact in the projected impact we used Monte Carlo simulations by taking random draws from the observed cumulative impact distribution and running the projected impact calculation for each draw. We

repeated these simulations 1,000 times and took the 2.5 and 97.5 percentiles as the 95th confidence intervals for the projected cumulative impact result.

Rating the effectiveness of interventions

The last step in the process is to systematically rate the effectiveness of interventions based on their impacts on selected outcomes. The goal here is to ensure that all EA interventions are rated in the same way and that the rating process is transparent.

Rating by outcome domain

For each EA intervention, we have one outcome measure grouped under each broad outcome domain. In the current effectiveness report, we focus on three outcome domains: income, employment and independence from welfare.

At present, we select one outcome measure to provide the summative assessment for the impact of each EA intervention on that domain. In the current analysis:

- income effectiveness is based on the EA intervention's impact on net income from all sources
- employment effectiveness is based on the impact on any time in employment
- independence from welfare assistance is based on time spent independent from Work and Income Assistance (ie not on main benefit or participating in EA interventions).

Translating impact to an effectiveness rating

For each outcome, we examine the observed and projected cumulative impact and categorise intervention effectiveness as shown in Table 10. In our analysis, we start with an initial assessment based on the observed impact and then adjust this assessment based on projected impact. The higher weight given to the observed period is because it has an empirical basis, while the projected impact is sensitive to the most recent trend in the observed impact (see page 37). The projected impact serves to moderate the observed impact in those instances where the two differ (ie in the off-diagonal cells in Table 10). For example, if an intervention has a significant negative observed impact and a significant positive projected impact, we only increase the rating from negative to likely negative, rather than to promising.

Table 10: Rating of outcome domain by impact on outcomes

		Projected impact		
		Significant positive	Zero	Significant negative
Observed impact	Significant positive	Effective	Effective	Promising
	Zero	Promising	No difference	Likely negative
	Significant negative	Likely negative	Negative	Negative

Table 11 illustrates the current distribution of observed and projected outcomes for the EA interventions included in our analysis. The main observation is that, for most results, the observed and projected impacts have the same sign. Only a relatively small proportion of interventions have different observed and projected impacts.

Table 11: Distribution of intervention outcomes by observed and projected impact

		Projected impact		
		Positive	Zero	Negative
Observed	Positive	26%	0.3%	0.1%

impact	Zero	6.8%	27%	4.7%
	Negative	3.4%	2.4%	30%

Rating the overall effectiveness of an intervention

Once we have an effectiveness rating for each outcome domain we then combine these ratings to arrive at an overall rating of a programme. Because we are combining three outcome domains, the number of combinations of results becomes much greater. Table 12 shows how we rate EA interventions based on the rating for one or more of the outcome domains as well as the observed outcome period. The Domain1 to Domain 3 columns can refer to any combination of the three outcome domains used in our analysis, the focus here is on the combination of positive and negative impacts between the three.

Table 12: EA intervention effectiveness rating code table

Outcome domain			Outcome period	Rating
Domain 1	Domain 2	Domain 3		
++			Any period	Effective
0	++	++	Any period	Effective
+	++	++	Any period	Effective
++	++	++	Any period	Effective
0	+	++	2+ years	Promising
0	0	++	2+ years	Promising
--	--	++	2+ years	Mixed
--	++	++	2+ years	Mixed
--	-	++	2+ years	Mixed
--	0	++	2+ years	Mixed
-	0	++	2+ years	Mixed
-	++	++	2+ years	Mixed
-	+	++	2+ years	Mixed
--	0	+	2+ years	Mixed
--	+	++	2+ years	Mixed
0	0	0	2+ years	Makes no difference
0	0	+	2+ years	Makes no difference
0			2+ years	Makes no difference
--	0	0	2+ years	Likely negative
--	--	+	2+ years	Likely negative
--			2+ years	Negative
--	--	--	2+ years	Negative
--	--	-	2+ years	Negative
--	-	-	2+ years	Negative
--	--	0	2+ years	Negative
--	-	0	2+ years	Negative

Outcome domain rating: ++: effective, +: promising, 0: no difference, -: likely to be negative, --: negative.

Effective: EA interventions are rated effective only if they are effective against the majority of outcome domains and they show no sign of having a negative impact on any other outcome domain. We do not wait two years before rating a programme as effective.

Promising: promising programmes are those that are effective or likely effective for at least one outcome and show no negative effects. We wait until we have two years of outcome data before rating an intervention as promising.

Mixed: mixed covers interventions that show both positive and negative effects across outcome domains. We wait until we have two years of outcome data before rating a programme as mixed.

Makes no difference: includes all EA interventions that have no effect on any outcome domain. We wait until we have two years of outcome data before rating a programme as making no difference.

Likely negative: interventions are in this group because either a minority of outcome domains are rated as negative with the remainder having no impact. Or, the majority are negative, with a minority having the possibility of being positive. We wait until we have two years of outcome data before rating a programme likely negative.

Negative: interventions where the majority of outcome domains are rated as negative. We wait until we have two years of outcome data before rating a programme negatively.

Too soon to rate: with the exception of interventions rated as effective, interventions with less than two years of observed impacts are rated as too soon to rate. The reason for waiting at least two years is that the majority of EA interventions have negative effects in the short-term (eg lock-in effects) and it is necessary to wait some time after commencement before positive effects are potentially observed.

Appendix 4: outcome and impact estimates

Table 13 shows the empirical estimates for the three outcome measures used in this analysis for all EA interventions. For each EA intervention and outcome, we show the observed and projected impacts. In the observed panel, the period column is the number of years after participation start date that we measure cumulative outcomes. Participant outcomes are the observed outcomes of participants over the follow-up period and the impact is the estimated difference the EA intervention made to participant's outcomes. The bracketed figures are the 95% confidence intervals. The projected impact panel show the period that we projected outcomes over (this is either 30 years or when we observe the full cumulative impact) and the impact over the full projection period.

Table 13: Outcome and impact estimates by outcome and EA intervention

		Observed outcomes and impact			Projected impact	
Intervention	**Outcome measure**	**Period**	**Participant outcomes**	**Impact**	**Period**	**Impact**
Activity in the Community	Income	10 yrs	$191,700 (±$1,900)	$-9,100 (±$3,200)	15.9	$-12,800 (±$3,300)
	Employment	10 yrs	218.6 (±3.6 wks)	-4.29 (±5.57 wks)	15.9	-8.00 (±5.86 wks)
	Off welfare support	10 yrs	214.9 (±3.3 wks)	-27.86 (±6.71 wks)	16	-34.29 (±7.00 wks)
Career Guidance and Counselling	Income	7.5 yrs	$157,700 (±$940)	$-1,300 (±$1,500)	13.9	$-2,700 (±$1,600)
	Employment	7.5 yrs	190.0 (±1.6 wks)	5.71 (±2.43 wks)	17.3	9.43 (±2.57 wks)
	Off welfare support	7.5 yrs	202.4 (±1.4 wks)	-5.29 (±2.57 wks)	13.8	-3.29 (±2.71 wks)
Case Management Initiative	Income	6.5 yrs	$131,400 (±$780)	$300 (±$1,300)	7.5	$200 (±$1,400)
	Employment	6.5 yrs	154.0 (±1.3 wks)	7.14 (±2.00 wks)	17.8	10.86 (±2.14 wks)
	Off welfare support	6.5 yrs	170.3 (±1.3 wks)	-2.14 (±2.14 wks)	10.4	-2.29 (±2.29 wks)
Community Employment	Income	7 yrs	$147,600 (±$4,900)	$2,900 (±$7,700)	12.9	$3,800 (±$8,000)
	Employment	7 yrs	102.9 (±8.1 wks)	11.43 (±12.43 wks)	12.9	14.00 (±13.00 wks)
	Off welfare support	7 yrs	103.0 (±7.6 wks)	5.71 (±15.71 wks)	12.3	7.14 (±17.14 wks)
Community Work	Income	14.5 yrs	$291,800 (±$3,900)	$-4,800 (±$6,000)	19.8	$-4,800 (±$6,300)
	Employment	14.5 yrs	344.3 (±6.3 wks)	8.57 (±9.29 wks)	19.8	11.29 (±9.71 wks)
	Off welfare support	14.5 yrs	376.1 (±6.3 wks)	-27.29 (±9.86 wks)	20.4	-28.71 (±10.29 wks)
CommunityMax	Income	4.5 yrs	$77,100 (±$1,400)	$-800 (±$2,300)	6	$-1,200 (±$2,400)
	Employment	4.5 yrs	111.4 (±2.3 wks)	12.86 (±3.71 wks)	10.4	14.57 (±3.86 wks)

Intervention	Outcome measure	Observed outcomes and impact			Projected impact	
		Period	Participant outcomes	Impact	Period	Impact
	Off welfare support	5 yrs	154.3 (±2.1 wks)	-12.86 (±3.86 wks)	10.4	-9.14 (±4.00 wks)
Course Participation Grant	Income	2 yrs	$40,100 (±$200)	$1,600 (±$330)	13.9	$6,890 (±$340)
	Employment	2 yrs	47.0 (±0.4 wks)	3.86 (±0.57 wks)	9.5	10.53 (±0.60 wks)
	Off welfare support	3 yrs	69.7 (±0.5 wks)	-1.57 (±0.89 wks)	9.3	1.66 (±0.93 wks)
DPB 12 week seminar	Income	4 yrs	$107,300 (±$2,100)	$300 (±$3,300)	9.7	$3,500 (±$3,400)
	Employment	4 yrs	64.3 (±3.7 wks)	-4.29 (±5.57 wks)	9.7	1.14 (±5.86 wks)
	Off welfare support	4.5 yrs	57.7 (±3.6 wks)	-10.57 (±5.86 wks)	6.8	-12.14 (±6.14 wks)
Employment Placement or Assistance Initiative	Income	2 yrs	$41,600 (±$270)	$500 (±$450)	5.5	$820 (±$470)
	Employment	2 yrs	47.3 (±0.4 wks)	4.00 (±0.71 wks)	5.2	6.54 (±0.74 wks)
	Off welfare support	2.5 yrs	61.1 (±0.6 wks)	-1.14 (±0.99 wks)	8.3	3.00 (±1.03 wks)
Employment Workshop	Income	2.5 yrs	$50,600 (±$430)	$-2,000 (±$710)	6.8	$-2,870 (±$740)
	Employment	2.5 yrs	56.1 (±0.6 wks)	-3.00 (±1.00 wks)	5	-3.56 (±1.04 wks)
	Off welfare support	2.5 yrs	63.6 (±0.6 wks)	-7.17 (±0.99 wks)	6.5	-9.90 (±1.03 wks)
Enterprise Allowance	Income	10 yrs	$189,300 (±$3,700)	$-19,700 (±$6,100)	21.3	$-23,700 (±$6,400)
	Employment	10 yrs	301.4 (±4.9 wks)	41.43 (±8.29 wks)	14.9	45.14 (±8.71 wks)
	Off welfare support	10 yrs	358.7 (±3.7 wks)	52.14 (±11.00 wks)	20.4	63.71 (±11.43 wks)
Flexi-wage (Basic/Plus)	Income	1.5 yrs	$38,900 (±$360)	$6,400 (±$590)	20.3	$34,790 (±$620)
	Employment	2 yrs	72.4 (±0.7 wks)	25.86 (±1.29 wks)	20.3	74.27 (±1.34 wks)
	Off welfare support	3.5 yrs	119.9 (±3.0 wks)	19.86 (±5.29 wks)	20.3	51.29 (±5.43 wks)
Foundation Focused Training	Income	2 yrs	$36,900 (±$330)	$-2,200 (±$570)	7.8	$-5,010 (±$590)
	Employment	2 yrs	33.7 (±0.6 wks)	-5.29 (±1.00 wks)	2.9	-5.56 (±1.04 wks)
	Off welfare support	2.5 yrs	46.9 (±0.7 wks)	-11.34 (±1.27 wks)	6.2	-14.93 (±1.31 wks)
Health Interventions	Income	5.5 yrs	$103,100 (±$1,100)	$-600 (±$1,800)	11.4	$-1,600 (±$1,900)
	Employment	6 yrs	87.1 (±2.4 wks)	2.86 (±3.71 wks)	6.8	3.00 (±3.86 wks)
	Off welfare support	5.5 yrs	73.6 (±2.0 wks)	-5.43 (±3.71 wks)	7.9	-6.00 (±3.86 wks)
Hikoi Ki Pae-Rangi/New Horizons	Income	13.5 yrs	$301,800 (±$6,700)	$-8,700 (±$10,700)	20.3	$-17,500 (±$11,200)
	Employment	13.5 yrs	328.6 (±12.9 wks)	-14.29 (±20.00 wks)	20.3	-24.29 (±21.43 wks)
	Off welfare support	13.5 yrs	287.6 (±11.3 wks)	-32.86 (±21.43 wks)	22.9	-40.00 (±22.86 wks)
In2Wrk	Income	6 yrs	$115,300 (±$1,100)	$-8,200 (±$2,000)	13.4	$-11,400 (±$2,100)

Intervention	Outcome measure	Observed outcomes and impact			Projected impact	
		Period	Participant outcomes	Impact	Period	Impact
	Employment	6 yrs	128.6 (±1.7 wks)	-7.14 (±2.71 wks)	7.3	-7.57 (±2.86 wks)
	Off welfare support	6 yrs	165.3 (±1.6 wks)	-14.29 (±3.00 wks)	16.8	-21.86 (±3.14 wks)
Job Connection	Income	10.5 yrs	$206,700 (±$3,700)	$15,000 (±$5,900)	22.3	$20,500 (±$6,200)
	Employment	10.5 yrs	265.7 (±6.1 wks)	48.57 (±10.00 wks)	21.8	57.29 (±10.43 wks)
	Off welfare support	10.5 yrs	277.7 (±5.6 wks)	31.43 (±11.86 wks)	17	35.57 (±12.29 wks)
Job For A Local	Income	3.5 yrs	$100,100 (±$3,400)	$15,300 (±$5,900)	9.9	$24,600 (±$6,200)
	Employment	3.5 yrs	134.3 (±3.9 wks)	31.43 (±6.86 wks)	6.3	37.86 (±7.14 wks)
	Off welfare support	3.5 yrs	123.0 (±2.7 wks)	-2.14 (±6.00 wks)	9.3	11.14 (±6.29 wks)
Job Opportunities with Training	Income	3 yrs	$66,100 (±$1,200)	$10,700 (±$1,900)	14.4	$23,200 (±$2,000)
	Employment	3.5 yrs	117.1 (±2.1 wks)	31.43 (±3.43 wks)	10.4	45.57 (±3.57 wks)
	Off welfare support	3.5 yrs	116.6 (±1.6 wks)	3.29 (±3.14 wks)	11	14.43 (±3.29 wks)
Job Ops	Income	4.5 yrs	$98,900 (±$1,200)	$11,700 (±$3,000)	15.4	$22,500 (±$3,100)
	Employment	4.5 yrs	145.7 (±1.6 wks)	31.43 (±2.57 wks)	9.9	39.00 (±2.71 wks)
	Off welfare support	4.5 yrs	157.5 (±1.2 wks)	-2.43 (±2.29 wks)	15.4	11.14 (±2.43 wks)
Job Plus	Income	8 yrs	$175,500 (±$950)	$12,800 (±$1,600)	20.3	$19,900 (±$1,700)
	Employment	8.5 yrs	262.9 (±1.6 wks)	48.57 (±2.57 wks)	20.3	64.14 (±2.71 wks)
	Off welfare support	8 yrs	271.9 (±1.3 wks)	30.00 (±2.43 wks)	20.3	42.00 (±2.57 wks)
Job Plus Maori Assets	Income	10.5 yrs	$226,800 (±$4,400)	$7,100 (±$7,000)	16.8	$15,400 (±$7,300)
	Employment	10.5 yrs	305.7 (±6.3 wks)	47.14 (±10.14 wks)	22.3	58.71 (±10.57 wks)
	Off welfare support	10.5 yrs	337.3 (±5.7 wks)	30.14 (±11.86 wks)	22.4	42.71 (±12.29 wks)
Job Plus Training	Income	7 yrs	$143,800 (±$1,100)	$6,600 (±$1,800)	21.8	$11,600 (±$1,900)
	Employment	7 yrs	204.3 (±1.9 wks)	27.14 (±2.86 wks)	21.8	44.43 (±3.00 wks)
	Off welfare support	7 yrs	219.4 (±1.7 wks)	15.29 (±3.00 wks)	21.9	30.00 (±3.14 wks)
Job Preparation Programme	Income	1 yrs	$20,900 (±$270)	$-600 (±$460)	1.6	$-650 (±$480)
	Employment	1 yrs	17.7 (±0.4 wks)	-1.86 (±0.86 wks)	6.6	8.46 (±0.90 wks)
	Off welfare support	1.5 yrs	25.8 (±0.6 wks)	-5.06 (±1.20 wks)	5.8	-9.01 (±1.26 wks)
Job search assistance	Off welfare support	2 yrs	41.0 (±0.8 wks)	-4.61 (±1.40 wks)	4.4	-5.86 (±1.43 wks)
Job Search Initiatives	Income	6.5 yrs	$132,900 (±$710)	$600 (±$1,200)	12.4	$900 (±$1,300)
	Employment	6.5 yrs	166.3 (±1.1 wks)	10.00 (±1.71 wks)	16.4	14.43 (±1.86 wks)

Intervention	Outcome measure	Observed outcomes and impact			Projected impact	
		Period	Participant outcomes	Impact	Period	Impact
	Off welfare support	6.5 yrs	188.2 (±1.1 wks)	-0.14 (±1.86 wks)	12.3	6.43 (±1.86 wks)
Job Search Service	Income	2 yrs	$43,600 (±$500)	$-900 (±$850)	13.4	$-2,210 (±$890)
	Employment	2 yrs	46.1 (±0.9 wks)	0.43 (±1.29 wks)	8.3	4.46 (±1.34 wks)
	Off welfare support	3 yrs	68.8 (±1.2 wks)	-5.71 (±2.14 wks)	13.4	-8.86 (±2.14 wks)
Jobs With A Future	Income	5 yrs	$112,200 (±$5,900)	$5,900 (±$9,500)	10.9	$7,400 (±$9,900)
	Employment	5 yrs	127.1 (±9.7 wks)	15.71 (±14.00 wks)	10.4	10.00 (±14.29 wks)
	Off welfare support	5 yrs	142.0 (±9.0 wks)	7.86 (±14.00 wks)	10.4	2.86 (±14.29 wks)
Limited Services Volunteer	Income	2.5 yrs	$39,200 (±$390)	$1,100 (±$670)	3.7	$1,390 (±$700)
	Employment	2.5 yrs	59.3 (±0.7 wks)	3.00 (±1.29 wks)	4.7	4.99 (±1.34 wks)
	Off welfare support	3 yrs	86.7 (±0.8 wks)	-4.57 (±1.57 wks)	9.2	-9.14 (±1.57 wks)
Literacy/Numeracy	Income	3 yrs	$51,100 (±$1,400)	$-6,600 (±$2,600)	5	$-8,100 (±$2,700)
	Employment	3 yrs	42.9 (±2.6 wks)	-10.00 (±4.29 wks)	5.5	-12.86 (±4.43 wks)
	Off welfare support	3 yrs	52.3 (±2.6 wks)	-12.14 (±4.57 wks)	8.8	-30.71 (±4.71 wks)
Local Industry Partnerships	Income	4 yrs	$90,000 (±$2,800)	$7,300 (±$4,100)	10.9	$11,600 (±$4,300)
	Employment	4.5 yrs	127.1 (±4.1 wks)	21.43 (±6.57 wks)	9.9	32.29 (±6.86 wks)
	Off welfare support	4 yrs	129.9 (±3.0 wks)	12.86 (±6.57 wks)	10	23.29 (±6.86 wks)
Mild to Moderate Mental Health Services	Income	5 yrs	$95,300 (±$2,600)	$-3,700 (±$4,100)	11.4	$-1,500 (±$4,300)
	Employment	5 yrs	80.0 (±4.7 wks)	-4.29 (±7.29 wks)	11.4	-3.57 (±7.57 wks)
	Off welfare support	5 yrs	75.0 (±4.4 wks)	-5.29 (±7.57 wks)	11.8	-5.29 (±7.86 wks)
Motivational Training	Income	10.5 yrs	$206,600 (±$3,400)	$-10,400 (±$5,700)	22.3	$-16,600 (±$5,900)
	Employment	10.5 yrs	264.3 (±5.4 wks)	-1.43 (±8.57 wks)	18.3	-1.00 (±9.00 wks)
	Off welfare support	10.5 yrs	306.9 (±5.3 wks)	-13.86 (±9.00 wks)	23.8	-22.86 (±9.43 wks)
New Initiative	Income	5 yrs	$101,600 (±$660)	$1,200 (±$1,100)	10.8	$100 (±$1,100)
	Employment	5.5 yrs	141.3 (±1.1 wks)	10.00 (±1.86 wks)	8.4	11.14 (±2.00 wks)
	Off welfare support	5.5 yrs	155.2 (±1.1 wks)	-0.86 (±2.00 wks)	7.4	-0.71 (±2.00 wks)
New Zealand Conservation Corps	Income	11.5 yrs	$209,700 (±$4,000)	$-15,400 (±$7,000)	16.4	$-16,900 (±$7,300)
	Employment	11.5 yrs	275.7 (±6.4 wks)	-17.14 (±10.29 wks)	13.9	-17.86 (±10.71 wks)
	Off welfare support	11.5 yrs	355.4 (±6.1 wks)	-35.86 (±10.86 wks)	17	-46.43 (±11.29 wks)
Outward Bound	Off welfare support	10 yrs	323.0 (±7.7 wks)	-1.43 (±15.71 wks)	16	1.43 (±15.71 wks)

		Observed outcomes and impact			Projected impact	
Intervention	**Outcome measure**	**Period**	**Participant outcomes**	**Impact**	**Period**	**Impact**
PATHS	Income	3 yrs	$57,500 (±$750)	$700 (±$1,300)	5	$900 (±$1,400)
	Employment	3 yrs	48.6 (±1.6 wks)	4.29 (±2.43 wks)	6	6.43 (±2.57 wks)
	Off welfare support	3 yrs	36.0 (±1.3 wks)	-5.14 (±2.71 wks)	4.7	-5.86 (±2.86 wks)
Recruitment Seminar	Income	2.5 yrs	$52,200 (±$700)	$-200 (±$1,000)	8	$-1,600 (±$1,000)
	Employment	2.5 yrs	56.7 (±0.9 wks)	-0.14 (±1.29 wks)	8	1.14 (±1.34 wks)
	Off welfare support	2.5 yrs	63.8 (±0.7 wks)	-6.24 (±1.24 wks)	6.4	-8.34 (±1.29 wks)
Search4Wrk	Income	6 yrs	$123,700 (±$1,200)	Not calculated	11.4	Not calculated
	Employment	6 yrs	138.6 (±1.6 wks)	-2.86 (±2.57 wks)	6.7	-2.86 (±2.71 wks)
	Off welfare support	6 yrs	170.4 (±1.4 wks)	-15.43 (±2.86 wks)	13.8	-19.00 (±3.00 wks)
Skills for Industry	Income	1 yrs	$23,200 (±$250)	$2,200 (±$400)	6.7	$7,600 (±$420)
	Employment	1 yrs	28.4 (±0.4 wks)	6.86 (±0.71 wks)	7.9	23.74 (±0.74 wks)
	Off welfare support	2 yrs	59.3 (±1.0 wks)	4.86 (±1.57 wks)	7	10.43 (±1.71 wks)
Skills Investment	Income	3.5 yrs	$83,600 (±$550)	$8,300 (±$1,200)	20.3	$22,500 (±$1,300)
	Employment	4 yrs	126.1 (±1.0 wks)	34.29 (±1.57 wks)	20.3	65.29 (±1.57 wks)
	Off welfare support	3.5 yrs	106.8 (±0.8 wks)	12.70 (±1.36 wks)	20.3	34.37 (±1.41 wks)
Skills Training	Income	7 yrs	$140,500 (±$770)	$2,800 (±$1,300)	18.8	$5,200 (±$1,400)
	Employment	7 yrs	171.9 (±1.3 wks)	12.86 (±2.00 wks)	18.8	20.57 (±2.14 wks)
	Off welfare support	7 yrs	187.3 (±1.2 wks)	1.00 (±2.14 wks)	12.8	0.71 (±2.29 wks)
SPS Study Assistance	Income	1.5 yrs	$46,500 (±$420)	$2,100 (±$770)	7.2	$10,470 (±$800)
	Employment	1.5 yrs	24.4 (±0.9 wks)	1.43 (±1.57 wks)	7.2	20.43 (±1.57 wks)
	Off welfare support	2 yrs	18.4 (±0.8 wks)	-5.71 (±1.86 wks)	7.7	9.86 (±2.00 wks)
Straight 2 Work	Income	4 yrs	$88,900 (±$810)	$5,900 (±$1,300)	6.7	$6,900 (±$1,400)
	Employment	4 yrs	111.9 (±1.1 wks)	18.57 (±1.86 wks)	7.9	23.14 (±2.00 wks)
	Off welfare support	3.5 yrs	106.2 (±1.0 wks)	9.71 (±1.57 wks)	7	13.00 (±1.71 wks)
Taskforce Green	Income	8 yrs	$167,200 (±$1,400)	$6,200 (±$2,300)	14.4	$10,000 (±$2,400)
	Employment	8 yrs	242.9 (±2.3 wks)	41.43 (±3.71 wks)	19.8	54.29 (±3.86 wks)
	Off welfare support	8 yrs	240.9 (±2.1 wks)	15.86 (±4.00 wks)	19.7	27.00 (±4.14 wks)
Training for Work	Income	2 yrs	$41,800 (±$390)	$1,700 (±$630)	7.6	$5,280 (±$660)
	Employment	2.5 yrs	63.9 (±0.9 wks)	7.29 (±1.29 wks)	12.9	16.93 (±1.34 wks)

Intervention	Outcome measure	Observed outcomes and impact			Projected impact	
		Period	Participant outcomes	Impact	Period	Impact
	Off welfare support	5 yrs	147.6 (±5.4 wks)	-0.57 (±8.86 wks)	10.4	-3.86 (±9.14 wks)
Training Incentive Allowance	Income	5 yrs	$132,100 (±$430)	$7,700 (±$770)	10.8	$16,000 (±$800)
	Employment	5 yrs	107.7 (±0.9 wks)	1.43 (±1.43 wks)	10.8	14.29 (±1.43 wks)
	Off welfare support	5 yrs	73.9 (±0.7 wks)	-11.14 (±1.43 wks)	10.9	-0.14 (±1.57 wks)
Training Opportunities	Income	6.5 yrs	$124,300 (±$590)	$-800 (±$1,000)	7.3	$-800 (±$1,000)
	Employment	6.5 yrs	146.1 (±1.0 wks)	5.71 (±1.71 wks)	15.9	10.57 (±1.86 wks)
	Off welfare support	6 yrs	140.0 (±0.9 wks)	-9.14 (±1.71 wks)	10.9	-9.43 (±1.86 wks)
Vocational Service Community	Income	1 yrs	$17,700 (±$200)	$-200 (±$350)	6.7	$-5,460 (±$370)
	Employment	1 yrs	9.1 (±0.4 wks)	0.00 (±0.71 wks)	6.7	0.00 (±0.74 wks)
	Off welfare support	7 yrs	43.1 (±3.7 wks)	-22.43 (±11.00 wks)	14.9	-30.29 (±11.43 wks)
Vocational Services Employment	Income	4 yrs	$86,600 (±$600)	$6,300 (±$1,200)	15.8	$13,800 (±$1,300)
	Employment	4 yrs	113.6 (±1.1 wks)	32.86 (±1.86 wks)	15.8	63.57 (±2.00 wks)
	Off welfare support	4 yrs	64.9 (±1.0 wks)	-8.00 (±2.43 wks)	10.5	-21.71 (±2.57 wks)
Wahine Ahuru	Income	13.5 yrs	$279,800 (±$7,700)	$2,000 (±$12,500)	20.3	$1,900 (±$13,000)
	Employment	13.5 yrs	314.3 (±14.3 wks)	14.29 (±22.86 wks)	20.3	21.43 (±24.29 wks)
	Off welfare support	13.5 yrs	295.1 (±13.3 wks)	-14.29 (±25.71 wks)	20	-21.43 (±27.14 wks)
Work and Income Seminar	Income	3 yrs	$59,400 (±$260)	$-1,000 (±$450)	9	$-1,200 (±$470)
	Employment	3 yrs	67.3 (±0.4 wks)	-0.71 (±0.71 wks)	11.4	-0.13 (±0.74 wks)
	Off welfare support	4 yrs	96.4 (±0.5 wks)	-9.11 (±0.96 wks)	12.9	-13.36 (±1.00 wks)
Work and Income Vacancy Placement	Income	3 yrs	$64,000 (±$290)	$3,500 (±$510)	7.6	$5,200 (±$530)
	Employment	3 yrs	95.7 (±0.4 wks)	16.71 (±0.71 wks)	9.6	25.60 (±0.74 wks)
	Off welfare support	4 yrs	131.5 (±0.6 wks)	5.87 (±1.04 wks)	9.8	7.79 (±1.09 wks)
Work Confidence	Income	5 yrs	$101,000 (±$550)	$-200 (±$890)	11.4	$600 (±$930)
	Employment	5 yrs	118.0 (±0.9 wks)	4.29 (±1.43 wks)	12.4	6.86 (±1.43 wks)
	Off welfare support	6 yrs	144.2 (±1.1 wks)	-3.86 (±1.86 wks)	11.8	-5.43 (±1.86 wks)
Work Confidence seminars	Off welfare support	5 yrs	115.8 (±0.9 wks)	-3.43 (±1.57 wks)	10.9	-4.86 (±1.57 wks)
Work Experience	Income	5 yrs	$99,000 (±$1,500)	$5,000 (±$2,300)	9.6	$6,900 (±$2,400)
	Employment	5 yrs	141.4 (±2.4 wks)	15.71 (±3.71 wks)	7.7	18.43 (±3.86 wks)
	Off welfare support	5 yrs	7.9 (±0.9 wks)	2.57 (±1.57 wks)	16.3	5.29 (±1.57 wks)

Intervention	Outcome measure	Observed outcomes and impact			Projected impact	
		Period	Participant outcomes	Impact	Period	Impact
Work Search Assessment Seminar	Income	1 yrs	$22,200 (±$210)	$-1,200 (±$350)	2.5	$-1,770 (±$370)
	Employment	1 yrs	18.9 (±0.3 wks)	-2.57 (±0.57 wks)	2	-3.33 (±0.60 wks)
	Off welfare support	2 yrs	36.5 (±0.7 wks)	-6.61 (±1.27 wks)	7.5	-12.03 (±1.33 wks)
Work Track	Income	8.5 yrs	$175,800 (±$1,200)	$-3,900 (±$2,000)	15.4	$-5,700 (±$2,100)
	Employment	9 yrs	247.1 (±1.7 wks)	7.14 (±2.86 wks)	12.9	7.57 (±3.00 wks)
	Off welfare support	8.5 yrs	294.9 (±1.4 wks)	-3.86 (±2.71 wks)	14.8	-4.43 (±2.86 wks)
Youth Seminar	Income	1.5 yrs	$24,700 (±$270)	$-1,000 (±$490)	7.6	$-2,080 (±$510)
	Employment	1.5 yrs	32.3 (±0.6 wks)	-1.71 (±0.86 wks)	7.6	3.99 (±0.90 wks)
	Off welfare support	2 yrs	55.6 (±0.5 wks)	-5.43 (±1.24 wks)	5	-6.84 (±1.30 wks)
Youth Training	Income	4 yrs	$57,500 (±$1,300)	$-1,200 (±$2,200)	9.7	$-7,100 (±$2,300)
	Employment	4 yrs	62.9 (±2.6 wks)	-5.71 (±4.29 wks)	9.7	-21.29 (±4.43 wks)
	Off welfare support	4 yrs	89.3 (±2.4 wks)	-18.00 (±4.57 wks)	9.9	-27.00 (±4.71 wks)