# Cost Benefit Analysis Template

## Section A Descriptive Information

**Vote** Social Development

**Responsible Minister** Hon Anne Tolley

**Initiative title** Extending the Youth Service to 18 and 19 year-olds.

| Funding Sought ($m) | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 & outyears | TOTAL |
|---|---|---|---|---|---|---|
| Operating | nil | 9(2)(g)(i) Free and Frank | | | | |
| Capital | - | - | - | - | - | - |

## Problem Definition

A strong focus on youth is required to reduce the number of people at risk of long-term benefit receipt and consequently reduce the overall benefit liability in line with the Investment Approach.

Although the number of new youth entrants to benefit each year is relatively low, the most recent actuarial valuation (to June 2014) showed that these participants account for a significant proportion of the liability over time. In fact, around 75 per cent of the forward liability is in respect of people who first received a benefit before the age of 20 – indicating that many of these young people remain vulnerable to benefit dependency their whole lives.

Of the 75 per cent of forward liability, young people who first receive benefit aged 16 or 17 account for 58 per cent (42 per cent of the total future liability), with the remaining 42 per cent attributed to those who first receive a benefit aged 18 or 19. Therefore, the 18 and 19 year olds form a considerable percentage of future liability (32 per cent of the total forward liability).

The Youth Service Extension aims to address this through equipping young people at risk of long-term benefit dependency with the skills and education to build an independent future to reduce the likelihood they will require a working-age benefit after age 18.

Teen parents are particularly vulnerable and currently represent a significant cost to the Government and are disproportionately represented in negative socio-economic statistics which are linked to long-term economic disadvantage. For example, 19 year-old sole parents have an average lifetime liability of more than $218,000 and on average, they will spend almost 18 years on benefit. Teen parents are a particularly vulnerable group. A United Kingdom study[1] found that while teen mothers came from a variety of backgrounds, teen motherhood can set off a chain of adverse effects that overwhelms young parents, even those without risk factors that predispose them to poor outcomes.

In general, it will take teen parents longer to gain a qualification due to their parenting responsibilities, and in turn, their earnings potential can be hindered by their disrupted education and lack of work experience. A Christchurch study[2] found that teen parents were nine times more likely than a comparison group to have no qualifications and three times more likely to be receiving a benefit. In part, this is due to these young parents not having the right support at the right time. Studies find that the anticipation of motherhood leads many teens to revaluate their priorities and motivates them to focus on their education. However, having the right supports is necessary to realise these aspirations.

Evidence also finds that children of teen parents are at greater risk of a range of poor outcomes, and that long term benefit dependency for teen parents has negative implications for their children, including a higher chance of becoming benefit dependent as adults themselves.

The Youth Service Extension intervention logic presents the following rationale:

- 18 and 19 year olds on benefit form a considerable percentage (around 32%) of future liability.
- Many Youth Payment and Young Parent Payment clients who transition out of Youth Service still rely heavily on

1 quoted in *Teen Parenting and Educational Outcomes: a Literature Review* Ministry of Education, 2011

2 Boden, Fergusson and Howard, 2009

their youth coach for advice and support.

- Transitioning out of Youth Service to Work and Income at the age of 18 may mean progress is halted or lost and trust must be built up again between a young person and their new case manager. The majority of teen parents are now aged 18 and 19 (937 and 1,200 respectively are on benefit compared to 406 16 and 17 year olds) so extending the Service to these older teen parents will significantly extend the reach of this Service while continuing to support young teen parents.
- Case managers do not necessarily have the expertise, capability or capacity to appropriately support young clients with very complex needs.
- At risk 18-19 year olds generally have social/behavioural and wellbeing issues (e.g. drug and alcohol abuse, criminal records, poor mental health) that need to be addressed before education or sustainable outcomes can be achieved. Youth coaches already working with these young people (if they have been in the Youth Service) are making progress addressing these issues, and the extension allows continuity of progress when the young person turns 18.

## Initiative Description

The 2014 election manifesto committed to extend the Youth Service.

The Social Security (Extension of Young Persons Services and Remedial Matters) Amendment Bill (the Bill) has been considered by the Social Services Committee and is due to be reported back to the House of Representatives by 23 January 2016. The Bill amends the Social Security Act to enable the extension. The Bill is expected to be passed and the implementation date is expected to be 1 August 2016.

The extension leverages off the existing Youth Service model introduced in 2012 and is an approach to working with vulnerable young people, where community-based providers deliver wrap around support to unemployed or disengaged youth and teen parents, or where there has been a family breakdown. Community-based providers are contracted and funded to provide the service.

The existing Youth Service supports the following groups:

- around 10,500 16 and 17 year olds who are not receiving financial assistance from the Government and are not in education, employment or training (NEET) or who are at risk of becoming NEET
- around 3,500 Youth Payment and Young Parent Payment recipients who are 16 and 17 year olds who can't live with their family, be supported by them or anyone else as a result of exceptional circumstances, and 16 to 18 year old parents who are receiving financial support from the Government.

Providers have incentivised outcome-based contracts focussed on achieving sustained participation in education achieving at least NCEA Level 2 or equivalent and to not be receiving a benefit or custodial sentence within 3 months of exiting the Service.

The Youth Service has been designed in line with both national and international evidence which demonstrates that improving young people's educational achievement leads to a range of better outcomes for both the young person and their children (in the case of teen parents).

The Youth Service also aligns with many of the best practice themes identified by the Youth Funding Review (2015). In particular:

- using risk factors to better identify youth who need additional support
- establishing clear and understood pathways – ideally with a focus on moving into employment
- programmes/services that are delivered in ways and places that work for youth
- programmes/services tightly targeted at specific issues/needs
- designing programmes based on the best available evidence
- successful implementation and delivery
- delivery in a community setting.

The Youth service is incorporating concepts of national and international evidence on the effectiveness of programmes and interventions to improve the education, training and employment outcomes of young people, including:

- early and sustained actions that target youth who are genuinely at risk
- programmes that involve a 'package' of tailored assistance

- meeting individual needs
- engagement with industry and the local community
- active case management and intensive job search assistance

The extension:

- extends access to the Youth Service to all 19 year old parents
- extends access to the Youth Service to 18 and 19 year old beneficiaries who are considered at significant risk of being on a benefit long term – this cohort focusses on employment outcomes rather than education or training (approximately 2,700 young people)
- utilises a risk model to assess an 18 or 19 year olds risk of future welfare dependence where they do not have any children
- focuses on sustainable employment outcomes for some young people where appropriate.

This will extend the reach of the Youth Service to provide intensive wrap-around case management to a new cohort of young people who are most at risk of long term benefit receipt. It will also give Youth Service providers time to build on the relationships they have already developed with young people already in Service and give them the best chance of moving off benefit.

Nineteen year-old parents will receive the Youth Parent Payment and receive a package of support which includes:

- youth coach support
- post placement support for up to 12 months
- youth activity obligations (education, budgeting and parenting)
- financial incentives
- money management.

In relation to the 18 and 19 year old beneficiaries, the Ministry will use risk modelling to identify the 2,700 clients who are most at significant risk of being on a benefit long term, to ensure that the service is targeted towards those most in need of intensive support. These young people are:

- three times more likely to have previously been on an main benefit
- four and a half times more likely to have had involvement with Child, Youth and Family
- twice as likely to be an ethnicity other than New Zealand European.

Under the extension these clients will receive:

- youth coach support
- post placement support for up to 12 months
- obligations to find work or study if they are yet to achieve NCEA Level 2 or equivalent
- a budgeting obligation
- financial incentives
- money management

## Alternative Options Considered

Other options considered for extending the Youth Service in the policy process prior to introduction of the Bill are set out in detail in the Regulatory Impact Statement (RIS) which has been published. The RIS found that the preferred option is likely to have significant positive impacts on "off-benefit outcomes", and socioeconomic outcomes for the new cohorts of clients proposed for inclusion in the Youth Service. This conclusion was reached by noting the initial evidence is that the Youth Service is improving the "off-benefit" and socioeconomic outcomes of existing YP and YPP recipients; and inferring that the new cohorts planned for inclusion in the Youth Service are similar enough to those it already serves that they are likely to receive similar benefits from similar interventions.

## Section B Impact Analysis

**Impact Analysis**

The existing Youth Service is showing positive indications of being an effective programme for vulnerable young people and utilises many best practice approaches.

Overall, the Youth Service outcome update to March 2015 concludes that given the long-term nature of the changes sought from the Youth Service, the evaluation findings are over a relatively short outcome period and underestimate the service's full effect. However it notes that:

- Under the Youth Service, most young people are engaged in education, training of work-based learning: 9 out of 10 young people enrolled in the Youth Service were engaged in at least one full-time or part-time education, training or work-based learning activity. The majority of these young people were engaged in education.
- More young people without children (Youth Payment participants) are achieving NCEA level 1 and 2 qualifications under the Youth Service.
- The Youth Service is yet to show an impact on NCEA achievement for young people with children, and those at risk of becoming NEET.
- Over the short to medium term, Youth Payment Participants spend more time receiving a youth support payment, and less time on main working-age benefits under Youth Service.
- For young people with children, the Youth Service has yet to show an impact on the time they spend on main benefit.

Anecdotal findings also found that the youth coach played a pivotal role in helping young people set goals and focus on their education. Many Youth Service providers tell us that the young people they work with face many challenges and that supporting them to get their lives back on track takes time. As well as assisting new clients, the Extension will allow providers to build on the relationships that they have forged with the young people already in their service.

The benefits of the proposed changes under the Youth Service Extension will:

- Improve educational levels of vulnerable young people
- Reduce long term benefit dependency
- Increase young maternal education
- Improve young parents children's education outcome and future employment prospects
- Improving coordination of services for teen parents.

There is strong evidence to support the economic and social benefits of gaining at least NCEA Level 2 or equivalent. For example, a 2010 study[3] found that those with an NCEA Level 1 qualification or equivalent:

- had a personal income 14 per cent lower than those with an NCEA Level 2 qualification (or equivalent)
- had a household income 10 per cent lower
- were 12 per cent less likely to rate their standard of living highly and
- rated their health 10 per cent worse.

Evidence also shows the chance of being on benefit reduces the higher the qualification level completed and earnings and employment rates also increase with the level of qualification completed[4]. NCEA Level 2 is also used as a prerequisite by many providers for undertaking further study towards the New Zealand Qualifications Framework (NZQF) Level 4.

We expect the Youth Service Extension to increase the number of sustainable off benefit exits for 18 and 19 year olds at significant risk of long term benefit receipt. The immediate impact of this will be a reduction in benefit dependency and increased household income. Although not quantified, employment can also be expected to improve household standard of living including health, and reduced offending and custodial sentences.

For the 19 year old parent cohort, there is a body of evidence pointing to better long-term outcomes for teen parents supported into training or education as opposed to going into unsustainable employment[5]. However this is yet to be

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[3] *Social and Economic Indicators of Education,* Ministry of Education 2012

[4] *Looking at the employment outcomes of tertiary education: New data on the earnings of young graduates*, Ministry of Education 2013

substantiated with the Youth Service participants as we are still in the short-medium outcome period. Earlier work has shown that it can take a long period of time for programmes that include a training or educational element to show an impact for time off benefit. For example, an evaluation of the Training Incentive Allowance (TIA) for sole parents found it took eight to ten years following the initial receipt of the TIA before overall time on benefit relative to their comparison group reduced. Although the Youth Service is yet to show an impact on NCEA achievement or off benefit outcomes for this cohort, this is due, in part to parenting obligations. It takes longer to either engage in education or be work ready (study obligations generally don't apply until the youngest child is one year of age). By giving providers more time to work with teen parents the Youth Service extension should improve outcomes for this cohort.

In addition to improving outcomes for the teen parent, the extension should have flow-on impacts for their children. Youth Service obligations are specifically targeted towards the wellbeing of the child. These include obligations for teen parents to complete parenting programmes, enrol children with a Primary Health Organisation, enrol with and complete Well Child/Tamariki Ora checks and attend suitable early childhood education. Good educational outcomes for children are also linked to maternal educational level meaning there is a long term gain in supporting these young parents as it will also assist their children's educational outcome and future employment prospects.

The Treasury's CBAx tool has been used to estimate the dollar value of impacts of the Extension, and to calculate a break-even point at which cost or expenses and revenue are equal. For this particular intervention, using a ten year scenario the break-even point is a 2.6 per cent sustained increase in off-benefit outcomes after seven years. In order to achieve this it is estimated to require a 6 per cent uplift in the 1 year sustainable off benefit outcome rate, or in other words 150 young people each year.

To put this proposal into a context of 'what could be achieved', the quantified outcomes of a 7 per cent increase in one year sustained off-benefit outcomes would give an NPV of $17 million dollars over 10 years; while a 10 per cent increase in one year sustained off-benefit outcomes would result in an NPV of $[illegible]9 million over 10 years. However, this does not take account of increased sustainability of outcomes resulting from higher levels of educational achievement and other improvements in wellbeing. These could have a significant impact on the NPV of the initiative.

Furthermore, if off-benefit outcomes extended further into the future, the initiative's NPV would be higher still, making it more beneficial from a financial and societal perspective.

This has also been calculated with reference to a reduction in long term benefit liability and increased revenue from income tax, and without factoring in savings that would be expected from the flow-on effects such as decreased offending and custodial sentencing, improved health outcomes, improved outcomes for children.

Given that we will only be working with the most at risk clients it isn't possible to make a comparative analysis to outcomes for the same cohort before the detailed risk modelling is completed.

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5 *What Young Graduates Earn When They Leave Study,* Ministry of Education, 2014; *Positive Outcomes from Poor Starts: Predictors of dropping back in* Hill & Jepson, 2007

## Impact Summary Table

We have complete two Impact summary tables to reflect break-even for the initiative, along with the impact should a 10% increase in sustainable in 1 year off benefit outcomes be achieved.

The main assumptions are as follows:

- Clients:
  - Capacity. It was assumed that the initiative would have capacity for
    - 2,700 18- and 19-year olds without children, and
    - 1,500 19-year olds with children.
  - Utilisation. In addition, it was assumed that the initiative would be used to capacity for the duration of its operation.

- Client transitions. It was assumed that:
  - Clients not on benefit are in full-time work.
  - Clients transition on or off benefit at most once per year, and these transitions occur on average half way through the year.
  - 19-year olds with children entering the initiative wait four years before seeking work (equivalent to waiting for a 1-year old child to reach school age).
  - The initiative would increase exit rates from benefit for 18- and 19-year olds without children for the first two years following entry into the initiative.
  - The initiative would increase exit rates from benefit for 19-year olds with children for the fifth year following entry into the initiative.[6]
  - Clients gaining work would sustain work as per the following table, irrespective of when they gained work during the time period for analysis. The rates in this table are based on observed exit rate sustainability for young people with poorer educational outcomes (no NCEA or NCEA < Level 1)

| Years after gaining work | 18- and 19-year olds w/o children | 19-year olds w/ children |
|---|---|---|
| 0 | 100% | 100% |
| 1 | 49% | 56% |
| 2 | 36% | 45% |
| 3 | 30% | 38% |
| 4 | 26% | 33% |
| 5 | 24% | 31% |
| 6 | 22% | 29% |
| 7 | 20% | 28% |
| 8 | 19% | 26% |
| 9 | 18% | 25% |
| 10 | 17% | 24% |

  - If the initiative did not run (i.e., control): 61% of clients would exit benefit into work in any given year. This is consistent with a 30% sustainable 1-year exit rate from benefit for 18- and 19-year olds without children.

- Initiative expenses were estimated at:

9(2)(g)(i) Free and Frank

[6] Note that from 1 April 2016, part-time work obligations for Sole Parent Support clients commence from when the youngest child turns three years of age (currently five years of age). Although this change may result in sole parents taking up work earlier, we have taken a conservative approach in calculating the benefits of the initiative.

- Quantified initiative savings were estimated based on:
    - Cost of JSS.
        - $9,489 on average per client on JSS aged 18-24 per year.
        - $11,388 on average per client on JSS aged 25+ per year.
    - Cost of SPS. $16,311 on average per client on SPS per year.
    - Government tax income for clients in work. $5,134 on average per client in full-time employment per year.
    - Private sector economic benefit for clients in work. $27,923 on average per client in full-time employment per year.

- Other assumptions:
    - Discount rates. A default discount rate of 8% real and an alternative discount rate of [illegible]% real were used for present value calculations.
    - Time period for initiative. It was assumed that the initiative would operate for a period of four years.
    - Time period for analysis. Youth are at high risk of long-term benefit receipt. A portion of future benefit dependency will fall in the distant future, and thus be less likely to be influenced by the initiative. So a time period of ten years was used for projections.
    - Labour market displacement effect. As the number of clients obtaining work through this initiative would be small relative to the overall labour market for this age group, it was assumed that there would be no displacement of other clients seeking work.

## Impact Summary Table Break-even

| Impacts - Identify and list ($m present value, for monetised impacts) | Option/scenario 1 | Option/scenario 2 | Assumptions and evidence (quantify if possibl e) | Certainty |
|---|---|---|---|---|
| **Estimated impact on key outcomes** | | | | |
| Increased employment outcomes | Uplift of 150 clients into 1-year sustained exit from benefit | | This would require approximately a 6% uplift in the 1-year sustainable exit rate. This is considered achievable as Youth Service providers have a closer relationship with the young people in service, and are therefore more likely to impact on work readiness. In-work support components along with increased educational achievement will also support young people to stay in work. | Medium |
| **Government Benefits/(Costs)** | | | | |
| Fiscal costs of the Service | -84 | -93 | 4,200 contracted case management placements with Youth Service Providers. | High |
| Decrease in benefit payments to the 18-19 at risk cohort | 15 | 18 | | Medium |
| Decrease in SPS payments | 7 | 9 | | Medium |
| Increase in tax received | 10 | 12 | Assumes clients all move from benefit into work at a wage consistent with an employee with NCEA Level 1 | Medium |
| **Total Quantified Govt Impact** | **-53** | **-54** | | Medium |
| **Wider Societal Benefits/(Costs)** | | | | |
| Extra income generated by clients now in work (after tax) | 53 | [illegible] | Assumes clients all move from benefit to eaming 70% of minimum weekly wage. Assume no offsetting decrease in employment/earnings of other groups. | Medium |
| **Total Quantified Societal Impact** | **53** | **[illegible]** | | Medium |
| **Net Present Value of quantified impacts** | **$0** | **$12** | | Medium |

Impact Summary Table 10% Increase in 1-year sustainable exits

| Impacts - Identify and list ($m present value, for monetised impacts) | Option/scenario 1 | 2 | Assumptions and evidence (quantify if possibl e) | Certainty |
|---|---|---|---|---|
| **Estimated impact on key outcomes** | | | | |
| Increased employment outcomes | Uplift of 260 clients into 1-year sustained exit from benefit | | This would require approximately a 10% uplift in the 1 year sustainable exit rate. This is considered achievable as Youth Service providers have a closer relationship with the young people in service, and are therefore more likely to impact on work readiness. In work support components along with increased educational achievement will also support young people to stay in work. | Low |
| **Government Benefits/(Costs)** | | | | |
| Fiscal costs of the Service | -84 | -93 | 4,200 contracted case management placements with Youth Service Providers. | [redacted] |
| Decrease in benefit payments to the 18-19 at risk cohort | 25 | 30 | | Low |
| Decrease in SPS payments | 11 | 15 | | Low |
| Increase in tax received | 17 | 21 | Assumes clients all move from benefit into work at a wage consistent with an employee with NCEA Level 1 | Low |
| **Total Quantified Govt Impact** | -31 | -27 | | Low |
| **Wider Societal Benefits/(Costs)** | | | | |
| Extra income generated by clients now in work (after tax) | 90 | 113 | Assumes clients all move from benefit to earning 70% of minimum weekly wage. Assume no offsetting decrease in employment/earnings of other groups. | Low |
| **Total Quantified Societal Impact** | 90 | [illegible] | | Low |
| **Net Present Value of quantified impacts** | 9(2)(g)(i) Free and Fran [redacted] | | | Low |

## Section C Conclusions

### Conclusions

For the initiative to break even only requires a modest a 6% (150 clients) uplift in the 1-year sustainable exit rate per annum. This is easily achievable, considering Youth Service Providers will be providing a more intensive and holistic service than that provided by Work and Income currently they are more likely to impact on work readiness. In work support components, along with increased educational achievement will also support young people to stay in work. In comparison, if a 10% uplift can be achieved, this would deliver a NPV of $59 million over 10 years. In addition to the decrease in benefit spend, sustained off-benefit outcomes will also have flow-on effects such decreased offending and custodial sentencing, improved health outcomes, improved outcomes for children, which, although not quantified, increase the value of the initiative.

### Summary of monetised results [only fill this out if you have monetised costs and benefits]

Fill this table out with the net present value, benefit cost ratio and return on investment for your initiative. These can all be calculated with the information you included in the summary table above. We ask you to present all three measures, because they each provide a different perspective on the costs and benefits of an initiative.

| | Discount Rate | |
|---|---|---|
| | **8% real (default)** | **4% real (sensitivity)** |
| Net Present Value (NPV)[7] | 9(2)(g)(i) Free and Frank | |
| Benefit Cost Ratio (BCR)[8] | | |
| Return on Investment (RoI)[9] | | |

### Supporting Evidence

MSD's *Youth Service Evaluation 2014* and the *Youth Service Outcomes report 2015*

*Teen Parenting and Educational Outcomes: a Literature Review.* Ministry of Education (2011). This paper references several sources relevant to the effect of education versus employment on long term outcomes for teen parents:

- *Teenage Mothers: Decisions and Outcomes.* Allen and Bourke-Dowling (1998)
- *An evidence based approach to teenage pregnancy and early childhood development – The Triad of Care.* Annual Clinical Report presentation to National Women's Health Centre. Quinlivan (2011)
- *Positive outcomes from poor starts: predictors of dropping back in.* Economics of Education Review. Hill and Jepsen (2007)

*Early Motherhood and Subsequent Lifetime Outcomes.* Boden, Fergusson and Howard (2008)

*What Young Graduates Earn When They Leave Study.* Ministry of Education (2014)

*Looking at the employment outcomes of tertiary education: New data on the earnings of young graduates,* Ministry of Education (2013)

[7] **Net Present Value (NPV)** - The NPV is the sum of the discounted benefits, less the sum of the discounted costs. This gives a single dollar value representing the net benefit of your initiative, in today's dollar terms.

[8] **Benefit Cost Ratio (BCR)** - The BCR is the ratio of total discounted benefits to the total discounted costs. A proposal with a BCR greater than 1.0 has a positive impact, because the benefits exceed the costs.

[9] **Return on Investment (RoI)** - Calculate the RoI by dividing the net change in societal impact (vs counterfactual) by the cost of the investment proposal. This can be interpreted as the impact on New Zealanders, per dollar the Government spends on the initiative. e.g. *"for every $1 the Government spends on this training programme, the collective living standards of New Zealanders increases by $4".*