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# Economic Benefits of Tackling Intergenerational Worklessness

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*An Independent Evaluation Commissioned by Tomorrow's People*



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## 1. Executive Summary

- There has been a significant increase in the number of non-working families in Britain over the last decade, despite a trend towards higher employment levels (prior to the last recession). One reason is that those gaining employment come primarily from families with existing workers.
- To date, programmes to bring unemployed people into work have tended to focus on individuals, rather than tackling the issue from a family perspective. Addressing the issue at the family level may tackle the root of the problem, given that individual decisions about employment have an effect on the rest of the household. This is true both from an economic point of view (i.e., given that if one member of the household goes into employment, this will affect benefit receipts by other members) and from a socio-cultural one (the stigma associated to worklessness may be reduced in workless households).
- This places a significant financial burden on government in terms of benefits paid and support provided. In addition it has a negative impact on the quality of life of those experiencing worklessness, affecting their confidence, work skills and motivation.
- The cost to the state of unemployed families is high, as unemployed families rely heavily on social security payments. Additionally, the benefit system may act as a perverse incentive for workless households to avoid entering employment. This is particularly true for workless individuals with high benefit receipts, and who expect to receive a low income from employment, given that below certain income thresholds, the marginal deduction rates for benefits can be as high as 90% (e.g., for every additional £1 earned, the benefit reduction amounts to £0.90).
- A Tomorrow's People pilot scheme intends to help intergenerational workless family members to change their views and attitudes towards worklessness. The scheme is to be run with 12 to 15 workless families – making up 48 to 60 individuals from various ages. Participation in the programme is voluntary. Its aim is to bring those people who are fit to work into the labour market, while encouraging other family members to support them and facilitate their integration into work (e.g., grandparents picking up the children from school).
- The scheme is aimed at bringing at least one member of each family into employment. To succeed, they will need special training and assistance in accessing a range of support services, including job-search support.
- The economic benefits of the scheme will accrue from three sources:
  - Increased output through participants entering the labour market. The magnitude of this will depend on how many participants enter the labour market and how long they will remain in employment.

- Government savings from reduced benefit payments
- Increased household (and/or community) welfare through voluntary work conducted by members of the household that do not enter paid employment, but who support those who do and/or contribute to additional voluntary activities. The value of these activities is important though data limits prevent the evaluation of these effects in the main analysis.. Illustrative approach to valuation is provided in the sensitivity tests in Section 6.
- There may also be other social and cultural benefits that are derived from the program (such as reduced crime or higher school achievement), but the linkages between such factors are complex and they have been placed outside the scope of this study.
- The scheme will have an estimated cost of around £0.5 million, split over three years. Years 1 and 2 are devoted to training (i.e., basic numeracy and literacy skills), whereas Year 3 is intended for evaluation and evidence collection.
- Modelled outcomes reflect a conservative assumption that 12 families rather than 15 (i.e. 48 individuals) will participate in the program.

#### *Success based on scheme targets*

- The target of the scheme is to bring one member of each family into employment (e.g., 12-15 individuals. Considering the (minimum) case where 12 individuals gain employment, modelling indicates that **it would only be necessary for these people to work full time for 2.5 years for the scheme to break-even (i.e. achieve a benefit cost ratio of 1.0)**. This modelling allows for the effects of both increased output and reduced benefit payments (though no allowance is made for household welfare effects).
- Every additional year that one or more of these individuals worked after that time (i.e. the 2.5 year threshold) would constitute a net economic benefit. These benefits would grow over time.

#### *Alternative measure of scheme success*

- The proposed scheme is based around an intensive focus on worklessness at the household level. However an alternative measure of scheme success is to review the results of past interventions by Tomorrow's People. Given that these interventions were not as intensely focused at a "whole of household" level this measure is likely to be conservative - as a higher success rate could be expected from the current project
- Nonetheless, calculations based on past interventions (and on the proportion of workless people who are seeking employment) suggest that around 10% of initial scheme participants (or approximately 5 people) would ultimately find full time jobs (i.e.  $48 \times 0.1 = 4.6 \sim 5$ )
- Of those who find work, past outcomes indicate that some that 70% will still be in employment

after one year. Once a workless person finds a full time job and persists with it for at least a year a reasonable assumption is that their employment behaviours start to converge with those of the “mainstream” workforce,

- Using demographic data we can expect that these participants will be employed, on average, for 25 years throughout their lifetime. A constant average annual real gross wage of £13,458 has been (conservatively) estimated over this period, based on Annual Survey of Hours and Earnings (ASHE) data.
- Besides the gains from increased output, participants taking a paid job will mean reduced benefit payments. For the average person employed, it was estimated that this would amount to £6,655 (in real terms) for each year the person is employed.
- Discounting these benefits using a “Green Book” discount rate of 3.5%, **the benefit-cost ratio of the project is approximately 2**. This means that every £1 invested in the scheme, generates economic benefits for a value of £2.
- This may be a conservative estimate as it makes no allowance for factors such as:
  - The value of any additional household/community benefits
  - Changes in the real value of wages over time both due to real wage growth and job progression
  - Those working part time and those who do not succeed to keep their jobs for one year (and who may return to the labour market again in the future).
- Sensitivity tests in the main report detail the effects of these and other changes to the modelled assumptions. These include adjustments to success rates and work duration as well as an illustrative example of the impacts of additional voluntary work.
- A summary of this research is also presented in the Tomorrow's People report “Getting Families Ready for Work: Breaking the Cycle of Intergenerational Worklessness”.

## 2. Background and Introduction

Tomorrow's People is a national charity that helps people out of long-term unemployment, welfare dependence or homelessness into jobs and self-sufficiency. Over the past 25 years, more than 400,000 people have been helped by Tomorrow's People in their quest to move out of long-term unemployment through mentoring, advice and guidance, job search, training and work experience.

Oxford Economics has been requested to conduct a cost benefit analysis (CBA) on behalf of Tomorrow's People, for a Pilot Scheme designed to break the pattern of intergenerational worklessness, and bring members of workless households back into the labour market.

There has been a significant increase in the number of non-working families in Britain over the last decade, despite a trend towards higher employment levels (prior to the last recession). One reason is that those gaining employment come primarily from families with existing workers.

To date, programmes to bring unemployed people into work have focused on individuals. However, for some people addressing the issue at the family level may tackle the root of the problem - given that individual decisions about employment have an effect on the rest of the household. This is true both from an economic point of view (i.e., given that if one member of the household goes into employment, this will affect benefit receipts by other members) and from a socio-cultural one (the stigma associated to worklessness may be reduced in workless households).

The increase in non-working families places a significant financial burden on government in terms of benefits paid and support provided. In addition it has a negative impact on the quality of life of those experiencing worklessness, affecting their confidence, work skills and motivation.

The cost to the state of unemployed families is high, as unemployed families rely heavily on social security payments. Additionally, the benefit system may act as a perverse incentive for workless households to avoid entering employment. This is particularly true for workless individuals with high benefit receipts, and who expect to receive a low income from employment, given that below certain income thresholds, the marginal deduction rates for benefits can be as high as 90% (e.g., for every additional £1 earned, the benefit reduction amounts to £0.90).

A Tomorrow's People pilot scheme intends to help intergenerational workless family members to change their views and attitudes towards worklessness. The scheme is to be run with 12 to 15 workless families – making up 48 to 60 individuals of various ages. Participation in the programme is voluntary. Its aim is to bring those people who are fit to work into the labour market, while encouraging other family members to support them and facilitate their integration into work (e.g., grandparents picking up the children from school).

Modelled outcomes reflect the more conservative assumption that 12 families (48 individuals) will be involved.

In order to quantify the viability of the scheme, a CBA is conducted. In order to do so, several approaches are considered:

- The scope and costs of the scheme are assessed in Section 3.
- An assessment of the benefits arising from the scheme, and the break-even points based on a success rates target approach, which is addressed in Section 4.
- An estimation of the likely benefits that the scheme will deliver based on data from past interventions, which is addressed in Section 5.
- Finally, sensitivity tests are carried out in Section 6, in order to assess the different returns of the programme under different assumptions.

Given limited data, various assumptions have been made in the modelling process. These are explained where applicable. When making these assumptions, the most conservative approach has typically been adopted, and therefore, the actual benefits are likely to exceed the figures presented here.

A summary of this research is also presented in the Tomorrow's People report "Getting Families Ready for Work: Breaking the Cycle of Intergenerational Worklessness".

### 3. Scope and Assessment of the Scheme

The Pilot Scheme run by Tomorrow's People intends to help intergenerational workless family members to change their views and attitudes towards worklessness. The scheme is to be run with 12 workless families – making up 48 individuals of various ages. Participation in the programme is voluntary. Its aim is to bring those people who are fit to work into the labour market, while encouraging other family members to support them and facilitate their integration into work (e.g., grandparents picking up the children from school).

There may also be an opportunity for family members who do not participate in paid work to expand their participation in education or in voluntary activities within or outside the household – in itself a means of self-development and eventual progress into work.

The Scheme is planned to run for three years. The estimated costs for each year are shown in Table 3.1. – these costs represent undiscounted cash flows.

**Table 3.1 Estimated costs of running the scheme (undiscounted)**

Year 1	£266,625
Year 2	£266,625
Year 3	£15,067
Total	£548,317

Source: Tomorrow's People

Training and support activities will take place during Years 1 and 2, whereas evaluation and evidence collection for assessment of the scheme will take place during year 3. During Year 1, it is envisaged that participants devote all their time to training and development, whereas in Year 2, they spend half a year in training and support activities, and the other half on work experience working (for those who succeed in finding a job). These are averages, given that some individuals will need more intensive support than others before they are ready to enter the labour market, and consequently, some will spend more time than others in training. However, on average, participants will take 1.5 years of training and support before they are ready to enter employment.

Given that the scheme is initially expected to engage a minimum of 12 families or 48 individuals, the (undiscounted) cost by each participant is estimated to be £11,423 over the three year period.

The approach taken to assess the viability of the scheme is a CBA. In conducting this analysis, we have used Net Present Values (NPV), that is, we have discounted future monetary flows at a 3.5% annual discount rate. This is the discount rate recommended by the HM Treasury in the "Green Book" for assessing viability of public investments in the UK. This means that costs or benefits today have a greater value than cost or benefits in the future.

By comparing future flows of expected benefits and costs, we can derive the point in time at which the scheme breaks even, and Benefit-Cost Ratio (BCR) to be expected from the programme.

The time period over which the evaluation is made is 27 years (the sum of training and expected working life outcomes).

As mentioned, the costs of the scheme, are known, and are estimated at around £0.5 million, spread over three years. However, the magnitude of the benefits is not known, and therefore needs to be estimated in order to carry out a CBA.

The economic benefits of the scheme arise from two main sources:

- Increased output through participants entering the labour market. This will, in turn, depend on:
  - Success rate of the program (i.e., percentage of participants who find paid employment as a result of taking part in the programme).
  - Expected duration of employment
  - Productivity or output produced by the participant when he enters employment – measured by his or her gross wage.
- Government savings through reduced benefit payments. This will depend on a participant's net earnings – which are a function of his or her gross wage.

Each of these will be dealt with in the following sections.

An additional source of economic benefits would be increased household welfare through increased voluntary work by family members engaging in net additional household activities and/or undertaking voluntary work in the wider community. However, for the purpose of the CBA, benefits arising from voluntary work have not been included, due to limited data. Effects of additional voluntary work are explored as a part of the sensitivity tests in Section 6.

## 4. Target-based viability assessment of the scheme

### 4.1. Introduction

This section assesses the viability of the scheme based on the “break-even points”, if the targets set for the programme are met. The break-even point is the point at which costs of the scheme equal its benefits. In other words, how long must those entering the labour market work, in order for the benefits of the scheme to equal to its costs.

The estimated costs of the scheme are known and have been set out in Section 3. On the other hand, the economic benefits that are generated through the programme (and are assessed in the main BCA) arise from two sources, as mentioned in Section 2:

- Reduced benefit payments by those who find a job, which depends on the wage obtained by those entering the labour market; and,
- Increased output from work, which in turn, depends on:
  - The success rate (the probability of finding a job after taking part in the scheme).
  - The output produced by those participants who enter the labour market. The gross wage is used as a proxy for output.
  - The duration of employment by those who enter employment.

The target of the scheme is to get at least one member of each household into employment. It is estimated that around 12 families will take part on the scheme. Assuming that every household, on average, is composed of 4 people of working age (given that the target groups are intergenerational workless households), this would imply a success rate of around 25%. Therefore, in order to calculate the break-even point, we will use a **25% success rate target** for full time employment. In Section 4.4 and Section 6, sensitivity tests based on different scenarios for different values of the success rate are developed.

The output produced by the participant when he / she enters the labour market, will depend on his / her gross wage (as will be explained in Section 4.1). Additionally, successful participants entering the labour market will reduce their benefit receipts as their income from employment increases. This will also depend on their gross wages.

Once we obtain these two variables, we can calculate the break-even point as a function of the duration of employment. Hence, the question we are trying to answer is: if the success rate target (25%) is met, for how long do participants need to be employed at a given gross wage, in order for the scheme to cover its

costs?

## 4.2. Output from employment

The output from employment has three main components:

- Gross wage paid to the employee (including net wage and taxes paid by the employee)
- Taxes, social security contributions, and other costs of employment paid by the employer (i.e., marginal overhead costs, machinery etc.) These are referred to as non-wage labour costs
- Profits generated by the worker (that is, the difference between the wealth the worker generates, and the cost of employing her/him)

For simplicity, when conducting CBA, output is measured by the gross wage, given the difficulty in estimating other parameters. However, it must be noted that the actual output produced by the employee is higher than gross wages, as it includes non-wage labour costs and profits. Therefore, actual output is likely to be higher than reported.

Data on the wages potentially earned by the people employed after completing the program is not available. It is assumed that such wages will be equal to the average full-time wage of the lowest decile of the labour force. In other words, we assume that the wage earned by those who find an occupation after taking part in the programme, is equal to the average of that received by the lowest 10% of wage earners in the labour force<sup>1</sup>. This amounts to an annual gross full-time wage of £13,458 for the whole of the UK, as highlighted in bold font in Table 4.1.

**Table 4.1- Annual pay - Gross (£) - For full-time employee jobs, United Kingdom, 2008**

Description	Percentiles									
	10	20	25	30	40	60	70	75	80	90
<b>ALL EMPLOYEES</b>	<b>13,458</b>	16,395	17,781	19,125	21,974	28,687	32,903	35,479	38,508	49,923
All Industries and Services	13,458	16,395	17,781	19,125	21,975	28,687	32,903	35,479	38,509	49,924
All Production Industries	14,484	17,368	18,734	20,053	22,801	28,849	32,627	34,949	37,669	47,622
All Manufacturing	14,331	17,144	18,514	19,747	22,469	28,335	31,972	34,222	36,918	46,119
All Service Industries	13,161	16,116	17,455	18,768	21,634	28,550	32,914	35,592	38,716	50,599

Source: Annual Survey of Hours and Earnings; ONS, 2008

<sup>1</sup> ONS (2008) *Annual Survey of Hours and Earnings (ASHE)*

Therefore, for a person working full-time (40 hours per week), we have assumed a weekly wage of £260 (£13,458 / 52). This wage is also used to compute the reduction in benefits when the individual goes into employment.

This is a conservative estimate, for several reasons:

- People entering the labour market, could expect their wages to grow as they accumulate more experience. For example, an 18 year old entering the labour market could expect his/her wages to rise as they gain experience and seniority in the workforce.
- Irrespective of seniority, wages are likely to grow in real terms over time. However, given that it would be difficult to estimate the growth in real wages over extended periods, we have assumed these will remain constant.
- While many of those who have been long term unemployed will be among those with the 10% lowest earnings in the society, some others will be beyond this threshold. The national minimum wage in 2009 is £5.80 per hour. The analysis assumes that successful participants will earn only slightly more than this (an average wage of £6.60 per hour) and that this will stay constant over time. In reality some participants may earn more, again meaning that assumptions regarding wages are likely to be a conservative estimate.

For these reasons, the actual output generated through the lifetime of a participant entering the market, will be higher than reported. Nevertheless, for simplicity, the CBA assumes an annual full time wage of £13,458.

### 4.3. Reduced benefit payments

Initiatives to bring people into employment, besides generating wealth through the resulting output, induce government savings through reduced benefits spending. This frees up government resources for spending on other uses (such as hospitals or education).

Since the composition of workless households are unknown beyond the age and gender (as opposed to the demographics of the workless individuals), some assumptions need to be made, using the information available from past Tomorrow's People's programmes, complemented by data obtained from the Labour Force Survey (LFS).

Using data from the LFS, we can derive a demographic profile of the typology and composition of workless households (Table 4.2). However, this reflects the demographics of all workless households with members of working age (including those with "early retirees" and/or those who are not actively seeking work) whereas the focus of this study is on those who could "potentially" find a job after participating on the programme.

**Table 4.2- Demographics of workless households, by composition, age, and type of household**

Number of working-age individuals who are in workless households	100%
1 working-age individual	52%
2 working-age individual	34%
More than 2 working age individual	14%

Source: LFS Households 2008

Number of working-age individuals who are in workless households	100%
Aged less than 25	20%
Aged 25-34	16%
Aged 35-44	19%
Aged 45-54	18%
Aged 55 to retirement age	28%

Source: LFS Households 2008

NB: "Retirement age" is 65 for men and 60 for women

Type of household	
1 person household	41%
Lone parent with dependent children	22%
Married or cohabitating couple with dependent children	10%
Married or cohabitating couple with no children or non-dependent	22%
Others	5%
Total	100%

Source: LFS Households 2008

As mentioned, this data reflects the composition of all workless households, including those who are inactive or unemployed, and not the typical composition of the households that would find jobs after participation on the programme. This distinction is important, given that some age and gender groups are more likely to be inactive than others (e.g., older ones). Further, amongst those who are unemployed or inactive and interested in finding work, some age and gender groups are more likely to find jobs than others.

Using data from past interventions by Tomorrow's People, we can derive the demographic profile of those who have taken part in past programmes, and the demographic composition of those finding jobs (Tables 4.3 and 4.4). By doing this, we can estimate how much more likely certain demographic groups are to find

jobs compared to average workless groups. The demographics and typology of workless households can then be adjusted to that of the workless households who are more likely to find jobs – since it will be the latter who will accrue reduced benefit payments.

**Table 4.3- Composition of Tomorrows People Participants 2008-09**

Client Totals	18-24	25 - 49	50+	Totals
Males	25%	36%	9%	69%
Females	15%	11%	4%	31%
Total	40%	47%	13%	100%

**Table 4.4- Composition of Tomorrows People Job Outcomes 2008-09**

Jobs	18-24	25-49	50+	Totals
Males	36%	26%	9%	71%
Females	18%	11%	1%	29%
Total	53%	37%	9%	100%

Source: Oxford Economics, Tomorrow's People

As indicated, most of the participants are either in the 25-49 year old group (47%), or in the 18-24 year old group (40%), whereas only a minority are in the 50+ year old group. Further, if we now compare these results against the data from job outcomes, we see that over half of the job outcomes are for 18-24 year olds, 37% are in the 25-49 year old (with two thirds of these being males), and only 10% in the 50+ year old group.

The pattern that emerges is that, although older individuals make up a large proportion of those in working age living in workless households, their probability of being actively looking for jobs is small, and their chance of actually finding a job, is even smaller. On the contrary, whereas younger individuals only make up 20% of the individuals in workless households (Table 4.2-II), they are much more likely to be interested in finding employment, and actually finding a job – making 40% of participants and 53% of all jobs (Tables 4.3 and 4.4).

Using this data, together with the demographic composition of workless households, we can derive four “typical” configurations for workless households that are likely to participate in the program and find a job:

- A single person, over 25, living alone
- A single person, under 25, being a non-dependent child of a workless household
- A lone parent with one child under 11 years old.
- A married couple with two children under 11 years old.

These assumptions will be important in determining how much money will be saved through reduced

benefit payments, given that the amount of benefits received depends on the actual composition of the households. The UK benefit system is complex, and small differences in household composition could have a large impact in benefit receipts. Therefore, different assumptions about household composition would lead to different outcomes regarding benefit savings.

Using Department of Work and Pensions (DWP) data<sup>2</sup> we have calculated benefits reductions for each of the four cases stated above, if one member of the household would start to work full time at a gross wage of £260 weekly (that is the equivalent of £13,458 annually). Tables providing the benefit savings for each case can be found in Appendix 1.

These calculations suggest that a non-dependent under 25 in a workless household would have the greatest financial incentive to find a job. However there may be many other reasons why a workless person may take up employment (e.g. pride, a sense of purpose, motivational issues). The fact that people from a variety of backgrounds have found work through past programs supports the idea that non-financial incentives also play a role.

We take an average of these four cases, as they are feasible representations of the potential profiles that could make up the potential successful interventions (i.e., those finding jobs). These household typologies are consistent with the data on the composition of workless households (Table 4.2), and the typical profile of participants who are more likely to find jobs (Table 4.4).

Based on these estimates, government savings for the average successful intervention are equal to some £6,655 every year through reduced benefit payments. Apart from the assumptions about household typologies, noted above, this figure is based on those working full time on a gross annual wage of £13,458.

#### 4.4. CBA

Once we have derived the average output per person employed, and the average benefit savings, we can calculate the break-even point for different success rates.

Based on the above estimates, every participant that enters full time employment benefits for a value of £20,113. These benefits accrue from £13,458 in output generated from employment, and £6,655 in government savings through reduced benefit payments. As indicated program costs per participant are £11,423.

Therefore, once we know the benefits that accrue when a participant enters employment (£20,113), we can calculate the break-even point as a function of the success rate (how many participants enter the labour market), and the duration of employment. These figures are summarised in Table 4.5 below:

<sup>2</sup> Department for Work and Pensions, Information Directorate (2008) *Tax Benefit Model Tables*

**Table 4.5- Cost per participant and benefits per job**

Cost per participant	£11,423
Output per job (per year)	£13,458
Benefit savings per job (per year)	£6,655

The break-even point can be expressed as the point at which:

$$\text{Cost per participant} = \{ \text{Output per job (per year)} + \text{Benefits savings per job (per year)} \} \times \text{Success rate} \times \text{Duration of employment (years)}$$

Using the above equation, if a target of 25% success rate is achieved (as stated in Section 4.1), then the programme would break-even when participants who find jobs have worked for 26 months (or 2.25 years). This would occur in Year 4 of the project, when accumulated benefits exceed accumulated costs, as indicated in bold font in Table 4.6<sup>3</sup>.

**Table 4.6- NPV of Benefits and Costs, for a 25% success rate**

	NPV (at 3.5% discount rate)			
	Costs	Benefits	Benefits-Costs	Accumulated Benefits-Costs
<b>Year 1</b>	£266,625	£0	-£266,625	-£266,625
<b>Year 2</b>	£257,609	£262,860	£5,251	-£261,374
<b>Year 3</b>	£14,065	£253,971	£239,906	-£21,468
<b>Year 4</b>	<b>£0</b>	<b>£245,382</b>	<b>£245,382</b>	<b>£223,914</b>
<b>Year 5</b>	£0	£237,084	£237,084	£460,999
<b>Year 6</b>	£0	£229,067	£229,067	£690,066

Source: Oxford Economics, Tomorrows People

Therefore, any full time work conducted for a period longer than 26 months, would be a net benefit to the scheme. For instance, if the participant goes on to work for an additional 10 months (up to the end of Year 4), then the scheme will have generated a net benefit of almost £224,000, and if she/he does it for one additional year on top of the 10 months (up to the end of project Year 5), then the scheme would have generated a net benefit of £690,000.

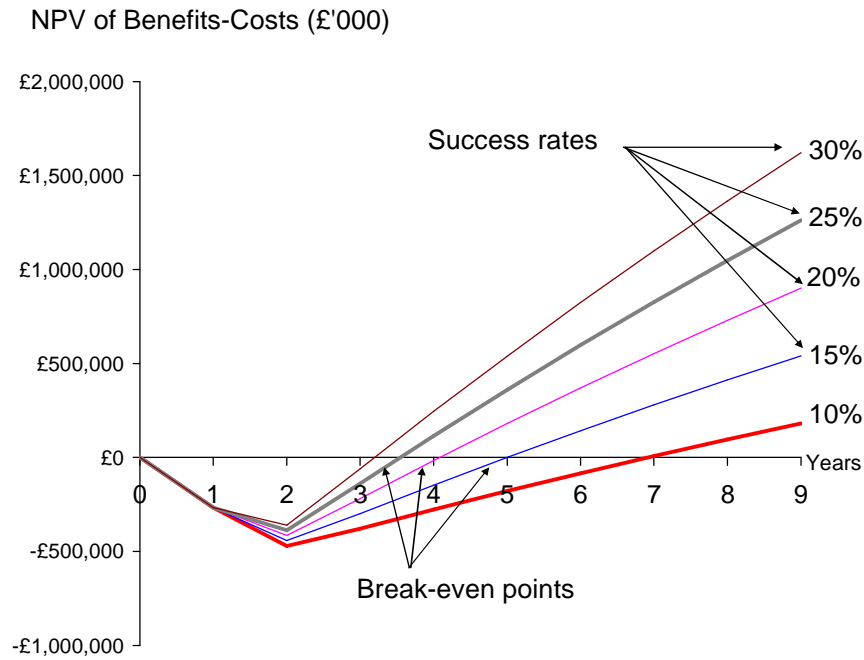
We can also calculate break-even points for alternative success rates. Even if the 25% target success rate is not met, and we assume much lower success rates (10-20%), break-even points occur relatively

<sup>3</sup> It could be argued that some of those who are workless would have “found employment anyway” over time. However, this raises the question of why this has not already occurred. The focus of this program, and of Tomorrows People’s work in general, is on the long-term unemployed and those who have the most difficulty in entering the workforce. Without an active intervention of some type it seems likely that participants would remain as long term benefit recipients. Indeed, preventing this from occurring is the rationale behind the scheme in the first instance.

early (Years 4 to 7).

These break-even points for alternative success rates are depicted in Chart 4.1. Note that the x-axis data points refer to the *end* of the relevant project year. So, for example, “Year 4” refers to the period between “3” and “4” on the x-axis.

**Chart 4.1 - Break-even points (years) at different success rates**



Source : Oxford Economics

The accumulated net benefits and break-even points for different success rates are also shown in Table 4.7 – marked in bold font.

Table 4.7- Accumulated net benefits and break-even points for different success rates

Accumulated net benefits (break-even points in bold font)								
Success Rate	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
10%	-£266,625	-£469,822	-£378,743	-£277,155	-£179,002	-£84,168	<b>£7,459</b>	£95,987
15%	-£266,625	-£442,616	-£298,965	-£146,583	<b>£647</b>	£142,898	£280,338	£413,130
20%	-£266,625	-£415,410	-£219,187	-£16,010	<b>£180,296</b>	£369,963	£553,217	£730,274
25%	-£266,625	-£388,204	-£139,409	<b>£114,562</b>	£359,944	£597,029	£826,096	£1,047,417
30%	-£266,625	-£360,998	-£59,631	<b>£245,134</b>	£539,593	£824,094	£1,098,975	£1,364,560

Source: Oxford Economics, Tomorrow's People

Given that the first 1.5 years of the programme is devoted to training and support, it follows that the duration of employment is the break-even point minus 1.5 years. Therefore, for a 10% success rate (break-even point in Year 7), the required duration of employment needs to be 5.5 years. Similarly, for a 15% success rate, the break-even point occurs in Year 5, which implies that the necessary duration of employment needs to be 3.5 years. This is shown in Table 4.8.

Table 4.8- Required duration of employment for the programme to break-even

Success Rate	Duration of employment for break-even
10%	5.5 years
15%	3.5 years
20%	3 years
25%	2.5 years
30%	2 years

Source: Oxford Economics, Tomorrow's People

If we now use the demographics of those finding jobs, based on past interventions by Tomorrow's People (Table 4.9), we can see that the majority of those finding jobs are in the younger age groups. In fact, the median age of the participant is 37, whereas the median age of those finding jobs is 30.

Table 4.9- Composition of Job Outcomes

Jobs	18-24	25-49	50+	Totals
Males	36%	26%	9%	71%
Females	18%	11%	1%	29%
Total	53%	37%	9%	100%

Source: Oxford Economics, Tomorrow's People

Under these assumptions, it seems plausible that those who find jobs, would be in the labour market for a period of between 2.5 and 5.5 years throughout their lifetime.

The conclusion is that, even if we do not have exact estimates about success rates or duration of employment, the viability of the scheme is achieved even for very low values of these parameters, under a series of reasonable assumptions. For success rates between 10% and 30%, the duration of employment of those finding jobs, would need to be between 2.5 and 5.5 years. This seems reasonable, given the demographic composition of the participants who find jobs, based on data from past interventions.

## 5. Assessment based on past interventions

As discussed previously, in order to estimate the potential benefits from the scheme, we need to make some assumptions about the success rates (what percentage of participants find jobs as a result of taking part in the scheme), and the duration of employment (for how long those who work find jobs).

Therefore, a second approach to assessing the benefits from the programme would be to use information from past interventions, and based on the demographic composition of the participants, to estimate the expected success rate and the expected duration of employment. Programme NPV and BCR can be calculated using these data.

As in the previous section, we will use as a proxy for benefits from employment the gross wage for the lowest decile of the labour force (see Section 4.2), which amounts to £13,458 annually for a full time job. With this gross wage, a representative workless household would see their benefit receipts reduce by £6,655 annually – see Section 4.3. Therefore, we need to estimate success rates and duration of employment in order to derive the expected benefits of the programme. These estimates are not readily available, for several reasons:

- This programme targets workless households instead of individuals, and therefore, the profile of the participants in this scheme is (or could be potentially different) to that of previous programmes.
- There is very limited demographic data about the composition of the households, in terms of typology, skills, or other relevant variables.
- There is no longitudinal data on the duration of work outcomes in past initiatives, and existing research on the field has only gathered evidence about job duration for short periods of time (up to one year). Additionally, publicly released surveys from the ONS, do not include longitudinal data (e.g., databases such as the Labour Force Survey are cross-sectional, not longitudinal).
- Existing research has focused on evaluation of specific programmes that are not comparable in nature to that of Tomorrow's People. For instance, whereas participation in the scheme that we are evaluating is voluntary, programmes such as the New Deal for Young People, is compulsory, and therefore not comparable in terms of success rates or duration of employment outcomes.

Under these limitations, other approaches have been used for estimating these variables. For success rates, we have used those resulting from Tomorrow's People past interventions, whereas for the duration of employment outcomes, we have estimated data using two different approaches.

## 5.1. Success rates on paid employment

Success rates are critical to the estimation of the benefits brought about by the scheme. We consider as successful those interventions that result in a member of a workless household entering the labour market.

Participation on the program is voluntary, and therefore, by enrolling, participants manifest their willingness to engage in paid work and/or support others in doing so. For this reason, success rates are not comparable to other schemes, given the different demographics of participants, and the nature of participation (e.g., the New Deal for Young People is targeted at a specific age group from 18 to 24, and participation is compulsory).

Using data from the LFS, some 39% of those in workless households appear to be wanting paid work<sup>4</sup>, as shown in Table 5.1 below. This is the sum of those individuals who are unemployed -and by definition, are “looking for work and available to work”-, and those who are inactive but declare to want paid work (16% and 23% respectively).

**Table 5.1- Number of working age individuals in workless households**

	Number	% of total
Working	n/a	0%
Unemployed	641,474	16%
Economically inactive but wanting paid work	928,852	23%
Economically inactive and not wanting paid work	2,394,051	61%
Total	3,964,377	100%

Source: Labour Force Survey (LFS)

Nevertheless, many of those who are, in principle, willing to engage in some activity will not achieve this purpose. Based on past Tomorrow’s People interventions data, 32% of those potentially willing to work, find a job, with 77% of them finding full time employment. Of these, roughly 70% are in employment after one year.

Using these distinctions, we can establish several categories of participants. These are presented in Table 5.2 below, using data from the LFS and past Tomorrow’s People programmes<sup>5</sup>:

<sup>4</sup> LFS Households 2006-2008, six quarter average.

<sup>5</sup> Oxford Economics (2004) *Twenty-Year Evaluation of Tomorrow’s People Trust Limited*

Table 5.2- Estimated success rates, using data from past interventions

Estimation of Outcomes	% Of Total	% Of Category	
<b>Not willing or able to take up a job:</b>	<b>61.0%</b>		
<b>Willing and able to take up a paid job, of those:</b>	<b>39.0%</b>	<b>100%</b>	
Will not find a job	26.5%	68%	
Will find a job, of those:	12.5%	32%	100%
<i>Not in employment after 1 year</i>	3.8%	30%	
<i>In employment after 1 year, of those</i>	8.7%	70%	100%
<i>With a part-time job</i>	2.0%		23%
<b><i>With a full-time job</i></b>	<b>6.7%</b>		<b>77%</b>

Source: Oxford Economics, Tomorrow's People

Therefore, by this measure the success rate would be roughly 6.7 % (i.e. the proportion of participants who have a full time job after one year)<sup>6</sup>.

In order to compare the validity of the above data, we will compare it with a second set of data based on recent (2008-09) Tomorrow's People interventions. This data shows the proportion of people successful in finding full time work (Table 5.3):

Table 5.3- Estimated success rates, using data from Tomorrow's People past interventions

Success Rates	18-24	25-50	50+	Totals
Males	14%	7%	9%	10%
Females	12%	9%	2%	9%
Total	13%	8%	7%	9.7%

Source: Oxford Economics, Tomorrow's People

NB: Success rates are defined as number of jobs/number of participants for each age group

Adjusting for the fact that, 30% of participants would not be employed after one year, the percentage of participants who find a full-time job and keep it for at least one year, is  $9.7\% \times 70\% = 6.8\%$ . This number is roughly the same obtained in Table 5.2 above. However, the slightly lower success rate of 6.7% (derived above) has been retained for the analysis.

<sup>6</sup> Part time workers have been excluded due to the limited availability of data for such workers. This also tends to make the analysis conservative, though the effects of this exclusion are likely to be modest.

## 5.2. Duration of Job Outcomes

The duration of those successful interventions resulting into job outcomes, is critical to the viability of the program. For the purposes of estimating the long-term benefits of the programme, we have taken the most conservative approach, including only on those participants that after enrolling in the program, are still in employment after one year, and have a full time job, that is, 6.7% of all participants taking part in the program (see Section 5.1).

Therefore, when calculating the economic benefits of the scheme through increased output and reduced government savings, we are excluding:

- Those who after a year of participating in the program, are still in employment, but on a part-time job (2% of the participants).
- Those who found a job, but were not in employment after one year (3.7% of the total). These participants are likely to return to the labour force in the future. We are excluding these from the calculation given the lack of availability of data, but if we were to include them, benefits arising from the program through increased output, would be even higher.
- Those who took part in the program and, in principle are willing to take a paid job, but did not find or did not want to take a job (23.8% of all participants). There is also a probability that some of these individuals will be in employment in the future, as a consequence of the skills acquired through the program. We are also excluding these when calculating the benefits of the program since there is no data that can be used for estimation, despite this group being the largest among those who are interested in finding a paid job.

In this context, it is likely that the actual figures regarding job outcomes and labour force participation are higher than reported, given that all the above categories of “potential” workers have been excluded when calculating the duration of employment of participants, for the reasons explained before.

Analysis of job duration indicates that the average successful participant could expect to work for 25.4 years. Details of the methodology for deriving this figure are included in Appendix 2

This means, that the benefits will accrue over 25 years (the estimated length of employment), whereas the costs will be incurred on the initial three years. Given that benefits in the future have less value than benefits today, we have to discount these in order to conduct a CBA. The results of this analysis are indicated below.

## 5.3. CBA

Using the information from the previous sections, we have estimated that the programme will have the following costs and benefits (Table 5.4)

**Table 5.4- Summary of estimated parameters.**

Total Costs (undiscounted)	£548,000
Long-term success rate	6.7%
Duration of employment	25.4 years
Gross Wage per job	£13,458
Benefit Savings per job	£6,655

Source: Oxford Economics, Tomorrow's People

With the above data, we can discount project costs and benefits, over the 27 year period (25.4 years of employment and 1.5 years of training), and we obtain that the NPV of costs and benefits (Table 5.5). Future flows are discounted at an annual discount rate of 3.5%, as recommended in HM Treasury's "Green Book".

**Table 5.5 - Summary of CBA (discounted)**

NPV of Costs	£538,000
NPV of Benefits	£1,066,000
NPV of Benefits - Costs	£527,000
Benefit-Cost Ratio	2.0

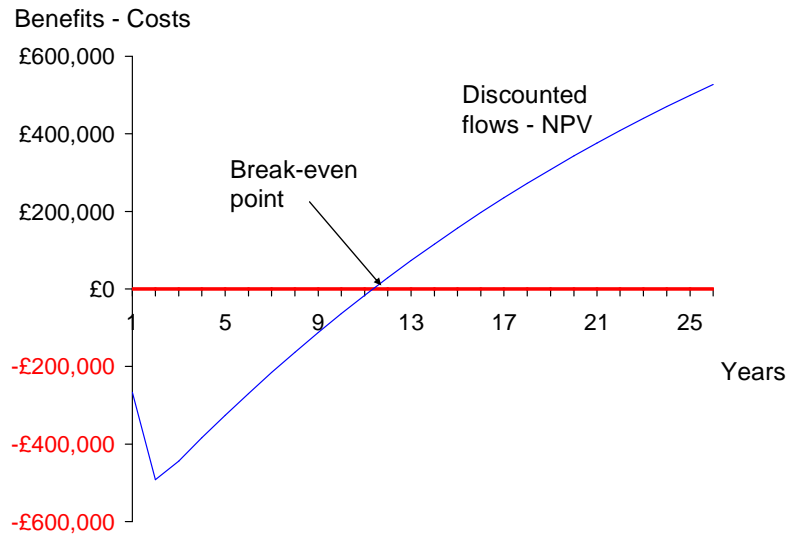
Source: Oxford Economics, Tomorrow's People

Therefore, the scheme is expected to generate a NPV of £527,000, based on estimations from previous interventions. The BCR is approximately 2. This means that every £1 invested on the scheme, will generate economic benefits of £2.

These results are summarized in Chart 5.1 below. Under these assumptions, the break-even point would occur in Year 12 – that is, after those finding employment have been working for 10 years.

Chart 5.1- Estimated Net Benefits from the Scheme

**NPV of cash flows and Break Even Point**



Source : Oxford Economics, Tomorrow's People

## 6. Sensitivity Analysis

In this section, we conduct a variety of sensitivity tests, and examine variations to the “base” analysis described in Section 5.

Sensitivity tests are conducted on the following:

- Success rates
- Duration of employment
- Voluntary work

### *Success rates*

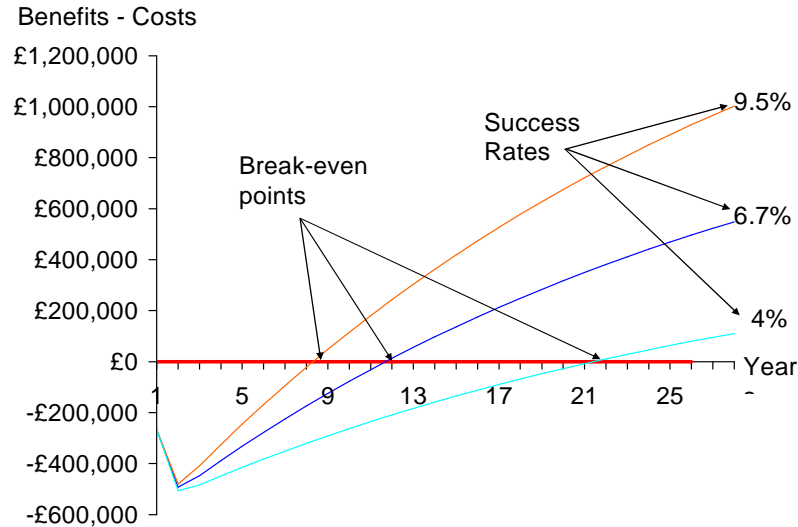
Under the central scenario, long-term success rates are estimated to be 6.7%, as explained in Section 5. This is a conservative assumption. Nevertheless, even if we would assume a much lower (4%) success rate, the scheme would still be viable (duration of employment remaining unchanged) with an NPV of £111,000 and BCR of 1.2. This would imply that, for every £1 invested in the program, the economic benefits that would be generated would amount to £1.20 – i.e. a 20% return.

Equivalently, if we assume a higher success rate of 9.5%<sup>7</sup> the net benefits of the scheme would be around £1 million (duration of employment remaining unchanged) and the BCR would be 2.9. These results are represented in Chart 6.1 below.

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<sup>7</sup> Some crude preliminary work indicates that this success rate might be similar to what would be achieved if part-timers and those leaving employment in the first year (but subsequently returning) were to be included in the estimates.

Chart 6.1- Net benefits for different success rates

**NPV of cash flows and Break Even Point**

Source : Oxford Economics, Tomorrow's People

*Employment duration*

Similarly, we can make alternative assumptions on the duration of employment, keeping success rates constant. If for instance, we would assume that the relevant duration of employment would be 15 years instead of 25, we would still obtain a positive net benefit from the programme of £136,000, and a BCR of 1.3. If, we would increase duration to 35 years – a feasible assumption given that the average age of those finding jobs is 30 years old – then the net benefits from the programme would amount to £761,000, or a BCR of 2.4.

*Voluntary work*

Although the Pilot Scheme is aimed at getting families into work, it also involves training, and development for those who may not directly participate in the workforce in areas such as basic skills and numeracy as well as offering motivational support.

In part, this is aimed at providing family support for job seekers – e.g. ensuring that children are safely picked up from school until parents return from work – but it is also aimed at improving the skills and motivation of ‘non-working’ participants.

However there may also be ancillary benefits from the scheme, For example, family members may feel more confident in taking on additional household work and providing extra support for children and the elderly in the household. In addition, they may feel more confident about involving themselves within the community through voluntary work. This would add to the “social capital” of society as a whole.

Although a wide literature search was conducted by Oxford Economics, data on the impacts of similar family interventions, data on such effects is very limited. For example, several studies review assistance to disadvantaged parents (both in the UK and internationally) and refer to impacts on child educational outcomes. However these studies are often qualitative in nature and there is little discussion of long term impacts. Further the aims of the Pilot Study are broader than many of the schemes discussed in the literature.

Perhaps the closest UK parallel to the Pilot Study is the Department for Children, Schools and Families (DFCSF), “Family Intervention Projects” (FIPs). These were set up in 2006 and 2007 and aimed at combating issues such as poor parenting, education, health and family breakdown among disadvantaged families. 62% of these families were workless families.

An evaluation of FIPs in 2007, reported in DFCSF (2008)<sup>8</sup> indicates that of the 690 families some 90 completed the FIP program (i.e. some 13%). By the end of the program, poor parenting among those families had been reduced from 65% to 31% (i.e. roughly cut in half). Parents assisted reported increased confidence and self esteem, higher levels of motivation. They also felt more confident about leaving the household.

Applying these figures suggests a success rate of roughly 7% in terms of overall improved outcomes. This can be taken as a broad indicator of motivational success for families in such circumstances.

This rate can be applied to the number of people who did not wish to take part in the paid workforce plus those who were not successful in finding paid work (calculated as a total of 45 people). By these estimates 3 people would be motivated to take on extra roles inside or outside the home (additional to any support given to job-seekers by themselves or others in the household)

The value of voluntary work (either inside or outside the household) can be estimated as £8.88 per hour based on gross hourly wages for child care workers.

Assuming that additional voluntary hours equated to four hours per day, over 233 working days per year and a duration of 2.5 years (a similar duration for measured outcomes for some past parent intervention studies) the project BCR rises to 2.1 as indicated below. Note that this reflects only the value of the extra time spent on some form of voluntary care - it does not include the long term “output” effects such additional care may have (e.g. improved child educational outcomes, reduced healthcare costs, crime costs etc.)

This sensitivity test is for illustrative purposes only. Results arising from additional voluntary work could be smaller or larger than this, with much depending on the motivational impacts and their duration.

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<sup>8</sup> *Family Intervention Projects: An Evaluation of their Design, Set-up and Early Outcomes*, DFCSF (2008)

Results

The results of the sensitivity analysis are summarised in Table 6.1.

**Table 6.1- Summary of sensitivity analysis**

	<b>Cost Benefit Ratio</b>	<b>Net Benefits (NPV)</b>	<b>Break-even point</b>
<b>Success rates</b>			
4%	1.21	£111,000	Year 22
<b>6.7%</b>	<b>1.98</b>	<b>£527,211</b>	<b>Year 12</b>
9.5%	2.86	£1,003,000	Year 9
<b>Duration of employment</b>			
15 years	1.25	£136,829	Not assessed
<b>25 years</b>	<b>1.98</b>	<b>£527,211</b>	Not assessed
35 years	2.41	£761,000	Not assessed
<b>Voluntary work</b>			
	2.1	£587,462	Not assessed

Source: Oxford Economics, Tomorrow's People

## Appendix 1. Benefit savings – representative groups

Four different cases are studied here, which *a priori*, could represent the most typical configurations of workless households. The following data has been derived from information<sup>9</sup> available from the Department of Work and Pensions (DWP).

### Case 1: Single Person, 25 or over, living in privately rented accommodation

	Weekly earnings from employment (gross / net)	Weekly Benefit Receipts	Government Benefits' Savings (excluding tax)	Weekly difference in individual's net income
<b>Not at work</b>	N/A	£194.30	N/A	N/A
<b>Working part time (20 hours)</b>	£130 gross/ £124.46 net	£83.69	£110.61 weekly = £5,752 annually	£ 13.85 weekly
<b>Working full time (40 hours)</b>	£260 gross/ £214.16 net	£34.70	£159.6 weekly = £8,299 annually	£54.56 weekly

#### NOTES:

1. The gross wage rate that has been assumed has been derived from the average gross wage of the lowest decile of the labour force, using ONS data. This amounts to £13,458 annually for full time workers, or £6,729 for part-time workers (gross).

2. We have assumed that the individual would live in privately rented accommodation, given that access to Local Authority (LA) housing would be difficult for a single person without dependants.

<sup>9</sup> Department for Work and Pensions, Information Directorate (2008) *Tax Benefit Model Tables*

**Case 2: Lone Parent, with one child under 11, living as a LA Tenant**

	<b>Weekly earnings from employment (gross / net)</b>	<b>Weekly Benefit Receipts</b>	<b>Government Benefits' Savings (excluding tax)</b>	<b>Weekly difference in individual's net income</b>
<b>Not at work</b>	N/A	£209.49	N/A	N/A
<b>Working part time (20 hours)</b>	£130 gross/ £124.46 net	£137.48	£72.01 weekly = £3,744 annually	£52.46
<b>Working full time (40 hours)</b>	£260 gross/ £214.16 net	£84.49	£125 weekly = £6,500 annually	£89.16

**NOTES:**

1. The gross wage rate that has been assumed has been derived from the average gross wage of the lowest decile of the labour force, using ONS data, and amounts to £13,458 annually for full time workers, or £6,729 for part-time workers (gross).
2. We have assumed that the household would live as a Local Authority (LA) tenant. If we would have assumed that the household would live as a private tenant, benefit receipts would be higher under all employment circumstances (given that the monthly rent would be higher).
3. If the lone parent claims for Child Care Costs when in employment - regardless of whether part-time or full-time, Government Benefits' Savings would lower (as these would be claimed back via Working Tax Credits).

**Case 3: Single Person, claiming JSA as a non-dependent, living at his parent's house**

	<b>Weekly earnings from employment (gross / net)</b>	<b>Weekly Benefit Receipts</b>	<b>Government Benefits' Savings (excluding tax)</b>	<b>Weekly difference in individual's net income</b>
<b>Not at work</b>	N/A	£60.50	N/A	N/A
<b>Working part time (20 hours)</b>	£130 gross/ £124.46 net	£0.00	£60.50 weekly = £3,146 annually	£63.96
<b>Working full time (40 hours)</b>	£260 gross/ £214.16 net	£0.00	£60.50 weekly = £3,146 annually	£153.66

**NOTES:**

1. The gross wage rate that has been assumed for full-time (40 hours) and full-time (20 hours), results from the average gross wage of the lowest decile of the population, using ONS data. This equates to £13,458 annually for full time workers, or £6,729 for part-time workers (gross)
2. We have assumed that the individual would live as a non-dependent in a workless (or for this matter, working household), where the number of rooms does not exceed the number of dependants plus the number of adults composing the head of the household. In this case, if a non-dependent adult enters the labour market, the rest of the household would be still entitled to a claim on benefits on its own

**Case 4: Married Couple, with two children under 11, living as LA Tenants, no child care costs**

	<b>Weekly earnings from employment (gross / net)</b>	<b>Weekly Benefit Receipts</b>	<b>Government Benefits' Savings (excluding tax)</b>	<b>Weekly difference in individual's net income</b>
<b>Not at work</b>	N/A	£318.59	N/A	N/A
<b>Working part time (20 hours)</b>	£130 gross/ £124.46 net	£220.66	£97.93 weekly = £5,092 annually	£26.53
<b>Working full time (40 hours)</b>	£260 gross/ £214.16 net	£167.06	£167.06 weekly = £8,678 annually	£47.10

**NOTES:**

1. The gross wage rate that has been assumed has been derived from the average gross wage of the lowest decile of the labour force, using ONS data, and it amounts to £13,458 annually for full time workers, or £6,729 for part-time workers (gross)
2. We have assumed that the individual would live as Local Authority (LA) tenant - given that a household with such a family composition would have easier access to LA Housing
3. A married couple could only claim for child care costs if both of them are in employment, therefore, child care costs would not apply

## Appendix 2. Job duration estimates

The duration of those successful interventions resulting in job outcomes, is critical to the viability of the program. For the purposes of estimating the long-term benefits of the programme, we have taken the most conservative approach, including only on those participants that, after enrolling in the program, are still in employment after one year, and have a full time job, that is, 6.7% of all participants taking part in the program (see Section 5.1).

Therefore, when calculating the economic benefits of the scheme through increased output and reduced government savings, we are excluding:

- Those who after a year of participating in the program, are still in employment, but on a part-time job (2% of the participants).
- Those who found a job, but were not in employment after one year (3.7% of the total). These participants are likely to return to the labour force in the future. We are excluding these from the calculations given the lack of availability of data, but if we were to include them, benefits arising from the program through increased output, would be higher.
- Those who took part in the program and, in principle are willing to take a paid job, but did not find or did not want to take a job (23.8% of all participants). There is also a probability that some of these individuals will be in employment in the future, as a consequence of the skills acquired through the program. We are also excluding these when calculating the benefits of the program since there is no data that can be used for estimation, despite this group being the largest among those who are interested in finding a paid job.

In this context, it is likely that the actual figures regarding job outcomes and labour force participation are higher than reported, given that all the above categories of “potential” workers have been excluded when calculating the duration of employment of participants, for the reasons explained before.

Summarising, the analysis includes only those participants who, further to participation in the program, do find a full-time job and are still in employment after a year – these are referred to as “job outcomes” or “successful interventions”. Data provided by Tomorrow’s People regarding the demographics and the success rates for past interventions, broken up by age groups, are shown in Table A2.1 below:

**Table A2.1- Success rates, as a % of jobs, by gender and age group**

Success Rate	18-24	25-50	50+	Totals
Males	14%	7%	9%	10%
Females	12%	9%	2%	9%
Total	13%	8%	7%	9.7%

Source: Oxford Economics, Tomorrow’s People

NB: Success rate is defined as Number of Jobs for category / Number of participants for each category

We can see that although the average success rate is around 10%, these rates are significantly higher for the 18-24 age group than for older participants, as would be expected (see the discussion in Section 4.2). Weighting the relative success rates for each age and gender group, with the number of participants on each group, we can obtain the composition of job outcomes relative to the number of participants (Table A2.3). This should not be confused with success rates in Table A2.1 above.

**Table A2.2 - Composition of Participants**

Client Totals	18-24	25-50	50+	Total
Males	328	472	120	920
Females	199	152	53	404
Total	527	624	173	1324

Source: Oxford Economics, Tomorrow's People

**Table A2.3- Composition of Job Outcomes, by gender and age group, as a percentage of the total number of participants**

Composition of Job Outcomes	18-24	25-50	50+	Totals
Males	3%	3%	1%	7%
Females	2%	1%	0%	3%
Total	5%	4%	1%	9.7%

Source: Oxford Economics, Tomorrow's People

NB: Composition of job outcomes is defined as Number of Jobs for category / Total number of participants

Table A2.3 indicates that for every 100 participants in the program, we could expect five jobs going to people aged 18 to 24, four further four jobs going to people aged 25 to 50, and an additional job going to somebody older than 50 – a total of 10 jobs. These results are obtained weighting the success rates for each group with the relative size of that group. For instance, if the success rate for the 18-24 age group is 13%, and 40% of participants belong to that age group, the result is  $40\% \times 13\% = 5.2\%$ , that is for every 100 participants, there will be 5.2 jobs going to people in this age group. With this information, we can also estimate the composition of job outcomes (Table A2.4)

**Table A2.4- Composition of Job Outcomes, as a % of the total number of jobs**

Jobs	18-24	25-50	50+	Totals
Males	36%	26%	9%	71%
Females	18%	11%	1%	29%
Total	53%	37%	9%	100%

Source: Oxford Economics, Tomorrow's People

NB: Composition of job outcomes is defined as Number of Jobs for category / Total number of jobs

Given that we have estimated the success rates and the composition of job outcomes, we can estimate the average length of employment, which will be a function of the age and gender of the participant.

The average age of the successful interventions is important, given that a young person breaking the cycle of benefits and unemployment and entering the labour market, is expected to work for a much longer period than an aged person, and therefore generate a higher output and Government benefit savings.

We can assume that those who have been in employment for at least one year following the intervention, are likely to acquire similar employment patterns as the general population. This is consistent with past research. For instance, research based on benefit-leavers, shows that, among those leaving Job Seeker's Allowance (JSA), around 80% are still in employment after 2 years<sup>10</sup>. This is equivalent to an employment rate of 80%, which is even higher than for the general UK labour force. This could be because those who do find a job and stick to it for more than a year, are likely to be the most committed to maintaining employment and it is likely that the first year would be the toughest adaptation period. Other research shows that the rate of job turnover after one year, is similar to that of the general labour force<sup>11</sup>.

Therefore, we assume that those participants that have found a full-time job, and have kept it for at least one year, will have the same working patterns as the average labour force, in relation to duration and probability of employment. Likewise, after one year holding a full time job, we can expect that the participant in the program has the same probability of entering *unemployment* or inactivity (at some future point in time) as an average citizen of his gender and age.

Using data from ONS<sup>12</sup>, we can derive the employment rate for each gender and age group (Table A2.5)

**Table A2.5- Employment rate by gender and age group, UK, 2004-2008 average**

Gender	20-24	25-34	35-49	50- Retirement Age	Over Retirement Age
Male	72	88	89	72	9
Female	64	72	76	69	11
Total	68	80	82	71	10

Source: Annual Population Survey

NB: Employment rates are defined as Number of employed people for category / Number of people of working age in that category

<sup>10</sup> Department of Work and Pensions (2002) *Job Retention and Advancement in Employment: Review of Research and Evidence*, In-house Report 98

<sup>11</sup> Department of Work and Pensions (2007) *Experience of work and job retention among lone parents: An evidence review*

<sup>12</sup> ONS, *Annual Population Survey*, retrieved on 26 June 2009

From the employment rates in the table above, we can derive how many years is expected to be employed a person from a certain age group. For instance, a male aged 30, has an employment probability of 88%. Equivalently, he is expected to be employed 88% of the time until he is 35 (5 years x 0.88 = 4.4 years), then for 89% of the time between the ages of 35 and 50, and 72% of the time until he retires at 65 years old.

The same analysis is conducted for women, except for that they would retire at 60 (although this will be gradually phased out between 2010 and 2020, so that the 18-24, and the 35-49 year old females can expect to retire as late as their male counterparts). However, for simplicity, we have assumed that the retirement age for women occurs at 60 years old. We have also excluded those who work past retirement age. This again reflects a conservative approach.

Therefore, using the information from Tables A2.4 and A2.5 we can derive the number of years that the successful job outcomes are expected to remain in employment. Given that there is no detailed data on the demographics of the participants and the job outcomes, we will assume that age of those finding a job is in the medium point of the age range. In other words, we will assume that the age of those going into employment is 21 for the 18-24 age group, 42.5 for the 25-49 group, and for those in the 50-Retirement age group, ages are 57.5 for males, and 55 for females. Using this information, we can derive the expected job duration of those going into employment, as summarized in Table A2.6.

**Table A2.6- Expected years of employment for job outcomes, by gender and age**

Expected length of employment	18-24	25-50	50+
Males	35.8	17.5	5.4
Females	28.0	12.5	3.4

Source: Oxford Economics

We know the composition of Job Outcomes, as shown in Table A2.7

**Table A2.7- Composition of Job Outcomes, as a percentage of the Total Number of Jobs**

Jobs	18-24	25-50	50+	Totals
Males	36%	26%	9%	71%
Females	18%	11%	1%	29%
Total	53%	37%	9%	100%

Source: Oxford Economics, Tomorrow's People

**With this information, we estimate that the average successful participant will work for 25.42 years.**