

THE EVALUATION OF JOB CREATION
PROGRAMMES, WITH PARTICULAR REFERENCE
TO THE FARM EMPLOYMENT PROGRAMME

G.T. HARRIS

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1. INTRODUCTION

The Department of Labour operates five job creation programmes, four to create permanent jobs in the private sector and one to create temporary jobs in the public sector. The private sector programmes have the dual aims of assisting private employers to maintain or increase staff numbers (by the payment of wage subsidies to employers), and providing greater opportunities for unemployed. The main features of the programmes are summarised in Table 1. The numbers employed under each of these programmes to September 1979, are shown in Appendix 1.

A research programme to evaluate the Farm Employment Programme was devised by the author in conjunction with the Department of Labour in mid-1979, and a pilot study was subsequently carried out. The main research study did not proceed for reasons connected to the Department of Labour, but it was felt appropriate to record the evaluation procedure and such results as could be gleaned from the pilot survey. In particular, this paper aims to indicate the methodology which could be used to undertake evaluations of manpower programmes.

TABLE 1

Summary of Main Features of Job Creation
Programmes

Sector	Conditions	Subsidy Rate
<u>Private Sector</u>		
Skill Promotion Programme	Vacancy for full time post involving training leading to a recognised qualification, e.g. apprenticeship	\$30 per week for 12 months
First Job Programme	Particularly for replacement of young school leavers in posts not involving recognised training	\$20 per week for 6 months; in addition, employers are paid \$520 6 months after placement if the person is still employed
Farm Employment Programme	Additional jobs on farms, with a particular aim being to promote development work and thereby exports	One-third of wage, i.e. between \$40 and \$50 per week
Additional Jobs Programme	For posts additional to normal staff requirements; not in retail, wholesale or finance sectors	One-third of wage for 6 months
<u>Public Sector</u>		
Temporary Employment Programme	For persons not able to be placed in permanent posts or under one of the private sector programmes. Work is of a short term nature, additional to the organisation's normal work programme. Government, semi-government and non-profit community organisations	100% wages reimbursement, plus provision to meet overheads

2. THE USE OF COST BENEFIT ANALYSIS IN MANPOWER
PROGRAMME EVALUATION

In a study which provides useful methodological insights, Spitaels (1979) examined the budgetary consequences of Belgium's Unemployment Absorption Programme, which began in late 1977, in both static and dynamic terms. The former involved a comparison of the cost of employing unemployed persons under the programme with costs incurred in the absence of the programme (viz, unemployment benefit payments, lost taxation and lost social service contributions). The dynamic calculation involved simulations using an econometric model of the Belgian economy. This allowed the calculation of secondary or delayed effects through the simultaneous consideration of a large number of variables. As a result, the impacts of the programme upon unemployment, growth, inflation and the balance of payments were able to be estimated, as well as the effect on public finances.

Such a dynamic evaluation is not appropriate for the existing New Zealand employment creation measures as these, with the exception of the TEP, have been introduced as counter-cyclical measures. Given this, cost benefit analysis (CBA) is the appropriate analytical tool. Properly used, CBA allows an assessment of past results and in some cases, a means of comparing the efficiency of different policies in achieving stated goals; it therefore enables adjustment to existing programmes and

the development of new, more effective programmes. It has the distinct and important advantage of considering not only the goals of the programme but also what else has happened as a result of the programme, be it positive or negative, expected or unexpected.¹

In brief, CBA considers the total net impact of a programme, i.e. how society is different today from what its condition would have been without the programme. This involves both before and after comparisons, and consideration of what would have happened in the absence of the programme.

Most CBA appraisal in the manpower field has been applied to educational/training programmes in the United States, especially amongst disadvantaged groups (e.g. Bateman, 1967; Somers, 1968; Barsby, 1972; Borus, 1972; Roberts, 1972). These studies consider the following question: "In what ways and by what amounts does the labour market experience of the participant during and subsequent to the programme differ from what it would have been had he not participated?" (Parnes and Shea, 1972, p. 189). From the answer to this question can be calculated indicators of private and social benefits of the programmes, and the opportunity cost of the participant's involvement. The benefits are almost invariably calculated as the sum of increased earnings per time unit and increased time in employment.

¹ See Barsby (1972, pp 1-22) for a comprehensive overview of the application of CBA to manpower programmes.

Considerable research problems occur, however, in satisfactorily answering the question. One of the most important is whether the change as a result of the programme is best measured by a before/after comparison (in terms of the impact on income earning and employment experience) for participating individuals or whether participants' income and employment experience should be compared with a control group of similar persons who did not participate. The control group approach has been regarded as methodologically more pure (e.g. Hardin, 1972), but it has been criticised particularly for commonly including in a control group, persons who differ in important respects from the programme participants. Other criticisms have centred on the biasing effects of the self-selection of participants (Ziderman, 1976) and for producing results of little policy value (Miller, 1972).

The Australian experience with manpower programmes during the 1970's has been organised under the National Employment and Training Scheme (NEAT). The present Australian government has consistently maintained that it is philosophically opposed to job creation as such. Hence NEAT has largely been aimed to improve the likelihood that the most disadvantaged of the unemployed will get a job. In other words, NEAT has attempted to change the order of those in the unemployment queue rather than to reduce the length of the queue.²

² For a consideration of NEAT from a politico-administrative standpoint, see Teicher (1978).

Two British employment programmes have recently been evaluated (U.K. Department of Employment, 1977) and these are close relatives of the New Zealand programmes. A Temporary Employment Subsidy (TES) was payable to employers who deferred a redundancy of 10 or more workers at an establishment; the Recruitment Subsidy for School Leavers (RSSL) was a weekly payment to any employers recruiting school leavers. Both these evaluations tackled the important issue of what the employers would have done (in terms of making workers redundant/recruiting school leavers) in the absence of the subsidies, and possible displacement effects, i.e. the extent to which workers were retained/recruited as a result of the subsidy but in place of other workers.

New Zealand's job creation programmes, summarised above, provide subsidies to employers to make them more willing to take on additional workers who would otherwise be unemployed; the workers may well enhance their future employability through, for example, acquisition of skill and experience but this is not a fundamental aim of the programmes as it is in the United States. The New Zealand programmes are designed much more as a counter - cyclical device of macro-economic management.³

³ For the evaluation of one TEP, see Harris and Stevenson (1979).

In one sense at least, this makes evaluation much easier. Persons who would otherwise be unemployed (the opportunity cost of whose employment may be assumed to be zero)⁴, are taken into programmes such as the FEP. The value of any net additional work they perform is an obvious resource benefit : the resource costs are the value of any additional work required in arranging placements under the programme and overseeing the FEP work effort, as well as the opportunity costs of any non-subsidised workers displaced or not employed as a result of the FEP.

3. THE FARM EMPLOYMENT PROGRAMME (FEP)

The objectives of the FEP were expressed as follows:⁵

- a) to provide productive full-time employment on farms for workers, particularly young persons, skilled or unskilled, who would otherwise be unemployed;
- b) to encourage employment creation in the farming sector;
- c) to upgrade the work skills and aptitudes of workers.

⁴ Mishan (1971, pp 75-81). This simplifying assumption is fast losing favour given its implied male chauvinism (i.e. the services of housewives working in the home are not valued) and increasing recognition of the value of creative leisure and community service.

⁵ Department of Labour, Head Office (Employment Division) Volume 3, Circular 137, H.Q. 30/1/63-6, 4 November 1977.

Since the aim of creating jobs for the unemployed has tended to become confused with assistance to farmers (because of the wage subsidy payments to employing farmers), it is worth emphasising that "the main purpose of the scheme is to create jobs for the unemployed".⁶ The programme was designed to subsidise additional labour, over the farmer's normal pattern of employment, and seasonal operations could not therefore be supported. Whereas priority was to be given to farmers needing labour for development programmes, a wide range of farm-based work was acceptable for subsidy, e.g. land clearing and development, fencing, general maintenance, home aid etc. This programme was originally scheduled to run until the end of October 1978 but in view of continued high unemployment levels, is still (March 1979) operating.

As a preliminary to more formal evaluation, it is worth commenting on the aggregate performance of the FEP as a means of providing employment. As at mid-1979, when the pilot survey took place, some 8 700 workers had had experience under the FEP, involving about 4 000 farmer employers. Many participants had worked in more than one FEP job and some farmers had employed more than one worker. For January, 1979, there were 4 028 FEP workers and 28 932 registered unemployed. Thus the FEP

⁶ *ibid*, Volume 3, Circular 140, December, 1977.

workers can be credited with reducing registered unemployment by 12.2 percent.⁷ About 39 percent of FEP workers were under 18 years (31 percent were aged 18-20, and 30 percent were 21 years and over). For the youngest age group, registered unemployment was 40 percent lower for males and 6 percent lower for females as a result of the FEP.

These figures are impressive and indicate that the FEP has been particularly important in placing male school leavers in employment. However, some FEP workers might have displaced school leavers who might otherwise have been employed by farmers as farm cadets or unsubsidised farm workers; this is considered later in this paper.

The FEP has been particularly important for some employment districts: Whangarei, Hamilton, Tauranga, Gisborne, Palmerston North, Masterton, Nelson, Greymouth, Timaru and Invercargill all had a ratio of 0.20 or greater for FEP workers to registered unemployment as of January 1979.

⁷ The most recent figures available (September, 1979) put the number of FEP workers at 2 279, reflecting the completion of work by earlier enrollees. For September 1979, operation of the FEP meant that registered unemployment was 8.7 percent lower than otherwise.

4. THE FEP PILOT SURVEY

Two pilot surveys were carried out in May 1979, and involved the posting of questionnaires to 30 farmers and 30 workers. The sample was randomly and independently selected from all past and present participants. The questionnaires are included as Appendices 2 and 3 to this paper. The response details are presented in Table 2.

TABLE 2

Response Details for Pilot Surveys

<u>Farmers</u>	
Questionnaires sent	30
Usable responses	21
Returned by Post Office	3
<u>Workers</u>	
Questionnaires sent	30
Usable responses	14
Returned by Post Office	9

The effective response rates (the percentage of usable responses from the total sent minus those returned by the Post Office) were 78 percent for farmers and 67 percent for workers. A large number of workers' questionnaires were returned by the Post Office, presumably because of their high mobility and lack of a sufficient forwarding address. This degree of non-response must be regarded as a limitation of the survey.

Before considering the results of these pilot surveys, it should be emphatically stated that these results cannot be considered statistically reliable. They may or may not give an accurate picture of the FEP. They are presented here to give a general indication of the way an evaluation might be carried out, provided it is based on a reasonably sized sample.

4.1 Farmer Responses

The 21 responding farmers occupied properties ranging from an 8 000 ha sheep and beef property in South Canterbury to a 10 ha vineyard near Gisborne. They had a median normal taxable income during the 1970s of \$6 250, with a 1977/78 median income of \$7 200. They had employed a median of 2.2 FEP workers (the range being 1 to 15) and five were employing FEP workers at the time of the survey. The median length of employment, for those workers who had left, was 1.9 months.

4.2 Farmer Opinions on Employing Labour

The most common employment pattern during the 1970s (Q.8 of the Farmer Questionnaire) was to employ casual labour when required (9 farmers), permanent labour (5), both permanent and casual labour (2) and to employ no labour (6). A strong thread running through many farmer responses (e.g. Q. 10, 12, 26 - 29) was that they could not afford additional labour, with a secondary theme that labour, especially competent labour, was

scarce. The continued employment of FEP workers depended on whether farmers felt they could afford it and on the availability of suitable workers (Q. 26). If the FEP subsidy stopped most farmers would immediately terminate their worker's employment (Q.27), most commonly because they could not afford to keep them on (Q.28). A raising of the subsidy from 33 percent to 50 percent (Q.29) would encourage farmers to keep their FEP labour longer (5 responses), give their FEP workers more training (4), and increase their number of FEP workers (3).

4.3 Net Employment Creation Impact (Farmer Viewpoint)

Farmers were asked (Q.11) whether they might employ fewer non-FEP casual or permanent workers as a result of employing FEP workers. The answers are presented in Table 3.

TABLE 3

Do you think you might employ fewer
workers as a result of the FEP?

Definitely fewer	2
Maybe fewer	1
No change from normal labour requirement	11
Maybe more	2
Don't know	2

Most farmers expected no change from their normal labour requirements but two farmers, both normally employing casual labour when required, appear to have substituted FEP labour for non-subsidised labour.⁸

Two farmers suggested they might employ more labour : in one case (a vineyard) this resulted from the use of a large number of FEP workers (a total of 15) which substantially raised productive potential.

Farmers were asked whether the work done by the FEP worker(s) would have been done in the absence of the FEP (Q.21). The responses, recorded in Table 4, indicate that in the majority of cases the work would have been done, mainly by the farmer and his family,⁹ but sometimes by employing someone else.

TABLE 4

Would you have got this work
done without the FEP?

Yes, by myself and/or family labour	10
Yes, by employing someone else (not under the FEP)	4
No, not in the foreseeable future	7

⁸ This is supported by responses to Q.12 indicating that the two farmers would have employed workers even without the FEP, and by responses to Q. 29 indicating that an increase in the subsidy would encourage another two farmers to substitute FEP labour for other labour.

⁹ A typical rider to this response was a comment to the effect that the FEP allowed it to be done more quickly.

Six farmers indicated that they were (or would be) employing more (non-FEP) labour in 1979 than they had in 1978 (Q.22). In explanation (Q.23), four of the six indicated that greater production potential and continuing development was the main reason for needing more labour.

In terms of employment creation, it appears that some farmers used FEP labour as a substitute for non-subsidised casual labour and in some cases for seasonal work. In most cases, however, farmers used FEP labour to carry out work which they or their families would have done sooner or later. Indications by farmers that their employment of labour would increase do not appear to have resulted directly from the FEP, although FEP workers may have enabled a more rapid completion of work necessary to allow the higher level of employment.¹⁰ On balance, and given the limitations of small numbers of respondents, it appears that the net employment creation impact attributable to the FEP was close to zero, i.e. farmers are unlikely to have raised their demand for labour as a result of the FEP. This results largely from the farmers' strong view that they cannot afford labour. If however, the FEP allowed a farmer to increase his long term productive potential, then there could be some net increase in employment.

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The presence of the FEP worker may have released the farmer to do work of a developmental nature, which may imply more employment in the future.

It is likely that a considerable amount of the impact of the FEP was to alter the timing of work, i.e. work which would have otherwise been done in years of high profit (in order to reduce tax payments) was carried out under the FEP. If this is correct, much of the gain to the nation in production is the advantage resulting from the earlier completion of this work.

4.4 Value of FEP to the Farmer

Farmers were generally impressed with the scheme. Almost all stated that their workers had performed the work for which they had been hired (Q. 15). The particular work carried out naturally varied between properties. Most workers carried out a range of general farm duties (Q. 14), but it appeared that in about half of the cases, FEP workers were at least partially engaged in what could be termed developmental activities (in which is included scrub cutting, weed control, land clearing etc.).¹¹

An indicator of the value of the FEP to farmers is the extent to which they were willing to go on paying two-thirds of the normal wage to workers. Of the 44 workers involved, roughly one-fifth had their work terminated by the farmer within a month (Q. 13, 24) indicating a generally satisfactory performance by the remainder.

¹¹ Fencing was a common activity and could be either or both the maintenance of existing fences or erection of new fences; in the latter case it would be developmental.

4.5 Worker Responses

Of the 14 worker respondents, most were male (12), and single (13); their median age was 19.3 years. Their median amount of secondary education was 3.6 years and they had left school 3.2 years ago. Eight had passed some school certificate subjects, the median number being five subjects. Their "usual home" was normally a farm (6), but another four came from cities of 10 000 to 100 000 people; the median distance of their work from their normal home was 62 km. They had an average of 1.7 FEP jobs and all but one had worked before their FEP experience. They had an average of three (non-FEP) jobs - experiences on farms (6), factories (5), at a trade (4), in shops (3) and at labouring (3). They had spent a median time of 1.9 months unemployed during their working life.

Turning to their FEP work, this was generally reported to comprise either general farm work or a combination of two or three specific jobs, normally including fencing, e.g. fencing and haymaking. Twelve of the respondents reported that they had added to their skills and/or knowledge as a result of their FEP job, usually either specific skills such as fencing and concreting or general farm management. Eleven felt that this experience would help them in the future in ways indicated in Table 5.

TABLE 5

How do you think your FEP experience will help
you in the future?^a

I gained new skills	10
I gained the experience of employment	5
I have increased in maturity as a result	3
I have had my first taste of farm work	3
I am keener to work now than I was before my FEP work	4

^a Multiple responses possible.

One of the important pieces of information required in evaluating the FEP is what happened to the workers when they finished their FEP work; some evidence is presented in Table 6. Of the eight respondents who were no longer in the FEP and were employed, four were in farm jobs. Five had been unemployed since leaving their last FEP job, and this had lasted a median time of 1.5 months.

TABLE 6

Current Work Status of Respondents

Still in FEP	4
Not in FEP, employed	8
Not in FEP, unemployed	2

The four still working under the FEP had been working under the programme for 5.8 months on average : the 10 not working with the FEP at the time of the survey had been working under the programme for a median time of four months. These differ from the average time reported by farmers of 1.9 months.

Overall, the experience seems to have been an enjoyable one with nine workers making favourable remarks and two making generally unfavourable comments : these latter appeared to have had very demanding employers.¹² Varied, out of door activities were commonly mentioned as a reason for liking the work.

Before and after comparisons of income earning and employment experience is often given emphasis in manpower evaluation. Income earning data are presented in Table 7. The apparent difference in earnings probably results from minimum wage increases during the operation of the FEP. Five of the eight wanted to stay in their current job for at least three years; three wanted to leave as soon as they could get anything better. Six of the jobs were defined as permanent.

¹² One of these workers reported receiving a wage of \$35 per week; the other complained of excessive unpaid overtime.

TABLE 7

Weekly wage earnings after tax (\$) for
workers no longer employed under FEP

Current wage (post FEP)	113 (range 100-157)
FEP wage	87 (range 35-110)
Previous wage (past job before FEP)	105 (range 85-120)

Although a crude attempt was made to measure pre and past FEP employment performance (e.g. Worker Questionnaire Q. 20, 23, 24, 44-46), it was not possible to deduce anything about the possible impact which the FEP might have had in improving workers' employability. It is impressive that eight of the 10 who had left the FEP were in fact employed. On this point, it seems that the FEP was seen by some workers as a base in which to mark time while waiting for another job : in one case nursing, in another the army, in another some "better opportunity".

Of the two unemployed, one had been six months without a job after leaving the FEP and had tried very hard to get a job (Q. 49). The other had left his FEP job a month before and had not looked for a job. Both stated they would like another farm job (Q. 50).

4.6 Net Employment Creation Impact (Workers' Viewpoint)

For various reasons, including greater skill, experience and motivation, a worker who has been employed under the FEP is probably more likely to be employed after the FEP experience than before. However, whilst this is good for the individuals concerned, it may have no favourable net employment impact. If, for example, the FEP simply means that they move more quickly than otherwise from the back of the queue of unemployed to the front, then the queue will stay the same length. However, if the former FEP participants take on jobs which would have otherwise been unfilled, then the employment situation is positively improved.

There is some evidence to suggest this may in fact occur. A number of farmers complained that there was not enough experienced labour, implying that they would employ such labour if it became available.¹³ Presumably, some of the FEP-experienced workers could have met this demand, in terms of skill and the motivation for farm experience gained under the FEP, in which case total employment would have increased. This might particularly be the case in terms of fencing work.

¹³ However, several studies (Lloyd, 1974; Beattie and Le Heron, 1979) have noted that many farmers who claim to be facing labour shortages would not hire extra labour even if it was available. See also p. 11 of this Paper.

5. ASSESSMENT OF THE FEP

An attempt is made in this section to value resource benefits and costs and transfer payments, based on the aggregate numbers involved in the FEP between October 1977 and June 1979, and also on the survey data presented in the preceding sections. Two pieces of data from the pilot surveys enter into the calculation of the benefit : cost ratio - the length of employment under the FEP and the proportion of farmers who would not have got the work done without the FEP.

Table 8 indicates the major benefits and costs accruing to the different groups affected by the FEP - workers, farmer employers and the government (in the public funds sense) - and to the nation as a whole. For the purpose of this analysis, resource benefits and costs are distinguished from monetary benefits and costs. Resource costs and benefits represent direct impacts on the nations resources, i.e. the value of work done or not done as a result of the FEP. It is the ratio of resource benefits to resource costs which will determine the worth of the FEP to the nation as a whole. There are also transfers of purchasing power from one group to another without the use of resources. By definition, these transfer payments sum to zero, e.g. taxes represent a negative transfer to taxpayers and an identical but positive transfer to the government.

TABLE 8

Major Potential Benefits and Costs of FEP

	Resource Benefits	Resource Costs	Transfers	Intangibles
Workers		Opportunity cost of foregone activities	1. Wages received (+\$6.0 M) 2. Value of accommodation (\$0.9 M) 3. Unemployment benefit payments lost (\$3.2 M) 4. Increased tax payments (\$1.2 M)	5. Value in self-esteem from working rather than being unemployed 6. Upgrading of skills, aptitudes and experience thereby enhancing future employability
Farmers	1. Value of work carried out under FEP (\$1.6 M)	2. Time instructing and organising new labour (\$0.5 M)	3. Farmer share of wages (\$4.0 M) 4. Accommodation costs (\$0.9 M)	5. Satisfaction of having work carried out, and/or completed sooner than otherwise.
Government	1. Saved resources administering unemployment benefit payments, employment service operations, etc.	2. Resources used in administering FEP	3. Increased taxation revenue (\$1.2 M) 4. Saved unemployment benefits (\$3.2 M) 5. Government share of wages (\$2.0 M)	6. Reduced unemployment figures
Nation	1. Net increase in production (\$1.6 M) 2. Saved administrative resources	3. Opportunity costs of foregone opportunities (\$0) 4. Any resources diverted to enable use of FEP labour (e.g. farmers' time) (\$0.5 M) 5. Administrative resources used		6. Reduced costs of unemployment to society, e.g. crime, ill health 7. Reduced work opportunities for non-subsidized labour 8. Greater satisfaction amongst people of working age 9. Upgrading of skills etc 10. Farmer satisfaction increased 11. Reduced unemployment figures

5.1 Impact on Farmers

The major resource benefit is the value of any increase in output attributable to the FEP. In the absence of a direct measure of changed output, it could be argued that the farmers "willingness to pay" is a surrogate measure of this value. Accordingly, a minimum value could be estimated by multiplying the number of workers by their weekly wage times 0.66 (the farmers' share of their wage) times the weeks they were employed plus the value of accommodation provided by the farmer. This total must then be multiplied by the proportion of farmers (0.33) who would not have got the work done in the absence of the FEP (see Table 4) although there is certainly a value in having the work done sooner than otherwise.¹⁴ The resulting figure for resource benefits is \$1.6 M.

This is a lower bound estimate because the work performed could have exceeded the wage received, especially for those farmers who may have substituted FEP workers for non-FEP labour. If the workers' contribution was valued at less than the actual payments they presumably would have been dismissed by the farmer. Furthermore, accommodation is valued at the Award rate of \$13.50 per week, which is considerably below actual cost to the farmer. Another conservative assumption is

¹⁴ See p. 14 above.

that the farmers' figure on the length of time their (former) workers were employed (1.9 months) has been used, rather than the former FEP workers' figure of four months.

The above estimate involves the important assumption that the employment of FEP workers released the farmer to carry out other farm work. If this was not the case (e.g. if the farmers used their FEP workers in order to relax) then a lesser net addition to the value of work may have occurred as a result of the FEP. Also, the value of increased output might not be confined to the duration of the FEP. The work done under the FEP may have been important or instrumental in effecting a permanent increase in output, e.g. if FEP labour was used to develop previously unused or underutilised land.

As regards resource costs, farmers would have spent some time in the instruction and organisation of FEP labour.¹⁵ If this amounted to say one-twentieth of the time (eight weeks on average) for which a worker was employed and farmer time is arbitrarily valued at one and a half times the Award adult farm worker rate, then farmer time spent in instruction and organisation

¹⁵ Fifteen of the farmers claimed to have given some on-the-job training (Q. 18).

may be valued at \$0.5 M.¹⁶ It is possible that resources other than farmers' time were diverted from other uses as a result of being used in FEP work. However, no information was collected on this aspect.

As regards transfer, farmers paid two-thirds of their workers' wage, and met his accommodation costs. These were estimated to amount to \$4.0 M and \$0.9 M respectively. Farmers would also have gained the intangible benefit of having work carried out (or having it carried out sooner than otherwise).

It is clear from the foregoing that the estimate of \$1.6 M for the value of increased output is extremely conservative. Based on their "willingness to pay", farmers valued the increased output at a minimum of \$4.9 M. It is hardly realistic to assume that farmers would have voluntarily incurred losses of \$3.3 M as a result of the FEP, but for the purposes of calculating a benefit cost ratio, we shall use \$1.6 M for the value of increased output.

5.2 Impact on Workers

Since the workers were all registered unemployed, it is reasonable to assume that their opportunity costs

¹⁶ i.e. 8 700 workers x 8 weeks x 0.05 (the proportion of a worker's time assumed spent by the farmer in organisation and instruction) x \$142.85 (one and a half times the award farm worker weekly wage).

(the value of the work they would have done in the absence of the FEP) was zero.¹⁷ As regards transfer payments, workers would have gained in terms of wages and accommodation, but lost unemployment benefit payments and incurred increased taxation. The net gain to workers is estimated at about \$2.5 M.

There are also important intangible benefits. Workers' morale and self esteem will have increased as a result of being employed¹⁸ (although some would argue that their loss of freedom could be regarded as a cost) and their work experience is likely to enhance their future employability.

5.3 Impact on Government

The government will gain a resource benefit in the form of reduced administrative effort as a result of fewer unemployed, but will incur a corresponding resource cost in the administration of the FEP. For simplicity, we assume that these cancel each other out.

As regards transfers, the government saves unemployment benefit payments and gains taxation revenue, but this is partly offset by the government's share of wages. The net result is a gain to government revenue of \$2.4 M. The government also gains the intangible benefit of reduced unemployment figures.

¹⁷ See footnote 4, p. 7 above.

¹⁸ Schweitzer and Smith (1974) suggest that loss of self-esteem may have a long term, if not permanent, impact upon a person's willingness and ability to work.

5.4 Impact on the Nation

The impact on the nation as a whole is the sum of the impacts accruing to each of the separate groups - workers, farmers and government. The ratio of aggregate resource benefits to aggregate resource costs provides the national benefit : cost ratio of the FEP, from October 1977 to June 1979 inclusive.

$$\begin{aligned}
 & \text{Value of work carried out under FEP} \\
 & \text{(\$1.6 M) plus administrative} \\
 & \text{resources saved}^{19} \\
 \text{i.e. B : C} &= \frac{\hspace{10em}}{\hspace{10em}} \\
 & \text{Opportunity cost of foregone} \\
 & \text{activities (\$0) plus farmer time} \\
 & \text{in instruction and control (\$0.5 M)} \\
 & \text{plus administrative resources} \\
 & \text{required}^{19} \\
 & \frac{\$1.6 \text{ M}}{\$0.5 \text{ M}} \\
 & = 3.2
 \end{aligned}$$

In addition, there are several important intangibles apart from those already mentioned as accruing to separate groups. Society benefits from reduced unemployment in that crime and mental and physical health problems are

¹⁹ Administrative resources saved and required are assumed equal.

lessened.²⁰ On the other hand there is some evidence that the FEP has meant reduced work opportunities for non-subsidized, casual labour.

²⁰ It is being increasingly recognized that unemployment is a casual factor in crime and a range of illnesses and these involve substantial government expenditure. See, for example, Rowthorn and Ward (1979) for application of some United States data to the United Kingdom.

6. CONCLUSIONS

Given the previously stated limitations, the available data suggest the following:

- (i) The FEP appears to have a positive national benefit cost ratio, without taking into account any long term impacts on farm output (Section 5.4).
- (ii) Farmers' output increased during the period under study, but the exact extent of this is extremely difficult to quantify (Section 5.1).
- (iii) In terms of transfer payments, both workers and government gained (Sections 5.2 and 5.3).
- (iv) In terms of its contribution to total employment, it is suggested that the FEP reduced unemployment substantially below what it otherwise would have been. The FEP was particularly important for males under 18 years (Section 3).
- (v) The FEP does not appear to have resulted in any significant net employment creation and may possibly have reduced work opportunities available for non-subsidised farm labour. When taken with evidence suggesting that the FEP has provided a useful base from which to enter other employment, it appears that apart from the FEP work itself, the FEP results in adjustments to individuals' subsequent positions in the queue of unemployed, rather than to a shortening of

the queue (Sections 4.3, 4.6 and 5).

(vi) It seems likely that some FEP workers have been sufficiently motivated and provided with skills by the FEP that they will fit into farm jobs in the future which may otherwise have not been filled (Section 4.6).

(vii) There is evidence that numbers of farmers, either deliberately or in ignorance, have not used the FEP as it was designed. In particular, there is evidence of substitution of FEP labour for non-subsidised workers (including seasonal workers) as well as suggestions of underpayment and non-payment for overtime.

The main obstacle to the continuation of the FEP, assuming its original aims remain intact, is the likelihood that FEP labour will be increasingly used in the place of non-subsidised labour. The problem of determining whether a farmer's application for a FEP worker represents a genuine addition to his labour force is difficult to ascertain and needs careful scrutiny. There would seem to be a case for an upper time limit for farmers for employment under the FEP.

A full-scale survey would probably clarify some of the issues raised in this paper and verify or refute its tentative findings. However, the non-response level among workers, and the bias to results which it may introduce, would be greater for any subsequent full scale survey. If surveys of this kind are intended, care needs to be taken to obtain an accurate record of longer term addresses for the mobile young people who participate in these schemes. Consideration could be given also to the prior construction of a control group against which to measure the performance of participants. But in the author's opinion, the gain in theoretical purity does not justify the effort entailed in devising satisfactory control groups. Finally, this paper follows one type of research methodology. Some useful supplementary information might be gained by personal (or even telephone) interviews. Whilst it might prove difficult to contact them, FEP participants who are currently unemployed might be particularly worth interviewing. Farmers might also be able, from a position of hindsight, to give some sort of estimate of the effects of the FEP on production levels.

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APPENDIX 1

Numbers Employed under Job Creation Programmes

	Total Employed Year Ended 31 March 1979	Number of Persons Employed at:	
		31 March 1979	30 Sept. 1979
Temporary Employment Programme	40 743 ^a	16 463	17 803
Farm Employment Programme ^b	7 868	3 940	2 279
Additional Jobs Programme ^b	4 869	3 522	3 000
First Job Programme ^c	1 655	1 151	377
Skill Promotion Programme ^{c,d}	1 309	1 032	362
	<u>56 444</u>	<u>26 108</u>	<u>23 821</u>

^a Includes the Student Community Service programme, providing vacation employment for tertiary students on community projects.

^b Operated throughout year.

^c Vacancies qualifying under these schemes operated until the end of September, 1978.

^d The objectives of this scheme are now met by the Additional Apprentices Incentive Scheme.

^e Reduced numbers in private sector programmes reflect earlier enrollees completing their subsidy periods.

Source: Department of Labour Annual Report, 1979,
and Labour Employment Gazette, Vol. 19,
No. 4, December 1979, p. 7.

APPENDIX 2

FARM EMPLOYMENT PROGRAMME PILOT SURVEY

WORKER QUESTIONNAIRE

LINCOLN COLLEGE 1979

- A. PERSONAL INFORMATION
1. Name _____
 2. Home address _____
 3. Age _____ years
 4. Sex _____
 5. Marital status: married
 single
 divorced/separated
 6. Number of years at secondary school _____ years
 7. Year when finished school - 19__
 8. Did you pass any subjects at School Certificate level?
 yes
 no
 9. If yes to Question 8, how many school certificate subjects?

 10. Is your normal home residence:
 on a farm
 in a small town (less than
 2500 people)
 in a large town (2500 to less
 than 10 000)
 a city (10 000 to less than
 100 000)
 a major city (Auckland,
 Wellington, Christchurch
 or Dunedin)
 11. Is your normal home residence with your parents?
 yes
 no

12. Do you consider yourself:

Maori
 Pakeha
 Pacific Islander
 Other

13. How far is/was your farm job from your normal place of residence?

_____ miles
 OR _____ kilometres

14. Has your father been unemployed at all during the 1970s?

yes
 no
 don't know
 not applicable

15. Have any of your brothers and sisters been unemployed during the 1970s?

yes
 no
 don't know
 not applicable

16. Is your father, or are any of your brothers or sisters, unemployed at the moment? (If your father is retired, then he is not unemployed.)

yes
 no
 don't know
 not applicable

B. WORK EXPERIENCE

17. Are you presently employed in a FEP job?

yes
 no

18. How many different FEP jobs have you had? _____

19. Did you ever have a job before getting a job under the FEP?

yes

no

If you answered No to question 19, go to question 25.

If you answered Yes to question 19, answer questions 20 to 24, and then go on to question 25.

20. How long is it since you began working?

_____ years

21. How many jobs have you had (not counting FEP jobs)?

22. What are the main types of jobs you have had?

23. How much of your time since you began working have you been unemployed?

_____ months

OR _____ years

24. What were you doing in 1978?

Employed _____ months

(at what work?) _____

Unemployed _____ months

School _____ months

Other _____ months

What was other? _____

C. YOUR FEP WORK

These questions refer to your present FEP job or, if you are not working under the FEP now, to your last FEP job.

25. Location of farm (nearest town) _____

26. District? _____

27. Could you describe the main kinds of work you do or did in your FEP job?

28. Have you learnt any new things in your FEP work?

yes

no

29. If you answered yes to question 28, could you say what things?

30. If you answered yes to question 28, how did you learn these things?

on-the-job training by the farmer
learnt it by doing it by myself
other (please say what)

31. Do you think that your work experience on the FEP has helped you or will help you in the future?

yes

no

don't know

32. If you answered yes to question 31, could you say how you think it will help you (tick more than one if you like)

I gained new skills

I gained the experience of employment

I have increased in maturity as a result of my FEP work

I have had my first taste of farm work

I am keener to work now than I was before my FEP work

Other (please say what)

33. How long were you or have you been at this FEP job?
_____ months
34. Would you like to stay, or like to have stayed, in this job permanently?
yes
no
don't know
35. What things do you or did you like about the job and conditions of work?

36. What things did you dislike about the job and conditions of work?

37. Are there any things you would like to say about the FEP or your FEP job?

- Those still in FEP work answer question 38 to 40 then stop.
Those who have left FEP, go to question 41.
38. What would you like to do when you finish this job?
get another job as soon as possible
have a break before looking for another job
have some further training
other (please say what)
39. What kind of job would you like to get?
farm job
a non-farm job
I do not want a job at all
40. Do you think it will be easier to find another job?
very easy
easy
50/50
hard
very hard
don't know

D. NOT NOW IN FEP WORK

41. Whose decision was it that you left your last FEP job?

farmer

your own

both you and the farmer

42. If your answer to question 41 was your own, or BOTH you and the farmer, could you say why it was decided you should leave?

43. What are you doing now?

employed

employed, but temporarily
absent from work

unemployed, have look for work
in the last four weeks

unemployed, have not looked for
work in the last four weeks

other (please say what)

44. How long is it since you left your last FEP job?

_____ weeks

OR _____ months

45. Were you unemployed for any of this time?

yes

no

46. If you answered yes to Question 45, for how long were you unemployed?

_____ weeks

OR _____ months

47. Could you get another FEP job if you applied?

yes

no

don't know

If you are not employed, answer questions 48 to 51 and then stop.

If you are employed, answer questions 52 to 59 and then stop.

E. NOT EMPLOYED

48. How long have you been without a job?

_____ weeks

49. How hard have you tried to get a job?

very hard

50/50

not very hard

haven't tried at all

50. What kind of job would you like?

another farm job

a non-farm job

no job at all

don't know

other (please say what)

51. Are you receiving the unemployment benefit?

yes

no, but I have applied

no

F. EMPLOYED

52. If you are employed, what is your weekly wage after tax?

\$ _____

53. What was your weekly wage after tax under the FEP?

\$ _____

54. What was your weekly wage after tax in your last job before you worked under the FEP?

\$ _____

55. How many jobs have you had since your last FEP job? (include your present job)

56. How long would you like to stay in your present job?

I would like to leave as soon as possible

about six months

about a year

three years or more

permanently if possible

57. If you answered, LEAVE AS SOON AS POSSIBLE, could you say why?

58. What is your present job? _____

59. Is it a permanent job? _____

APPENDIX 3

FARM EMPLOYMENT PROGRAMME PILOT SURVEY

FARMER QUESTIONNAIRE

LINCOLN COLLEGE 1979

A. FARM CHARACTERISTICS

1. Location of farm (nearest town) _____
 District _____
2. Size of farm _____ acres or _____ ha
3. Type of farm (following the Department of Statistics classification). Please tick one box.

Explanatory notes:

- 1 - 75 percent or more of gross income is derived from the stated activity
- 2 = between 51 and 74 percent of gross income is derived from the first named activity and between 20 and 40 percent from the second
- 3 = two or more activities or roughly equal proportions
- 4 = two or more activities of roughly equal proportions, one of which is cropping
- 5 = more than 50 percent of gross income is derived from the stated activity

Dairy ¹	Beef with sheep ²
Sheep ¹	Beef with other ²
Beef ¹	Cropping with sheep ²
Pig ¹	Cropping with other ²
Cropping ¹	Pig with other ²
Dairy with sheep ²	Mixed livestock ³
Dairy with beef ²	General mixed farming ⁴
Dairy with other ²	Poultry ⁵
Sheep with dairy ²	Market gardening ⁵
Sheep with beef ²	Orchards ⁵
Sheep with cropping ²	Tobacco growing ⁵

Sheep with other² Other farming
 Beef with dairy²

4. What do you regard as "normal taxable income" from your farm during the 1970s?

5. Could you estimate your taxable income (to the nearest thousand) for the financial year 1977/78?

B. LABOUR

6. How many FEP workers have you employed since the scheme commenced?

7. How many do you have at the moment? _____

8. What has been your "normal employment pattern" during the 1970s apart from FEP workers?

employ no labour

employ casual labour when needed

employ permanent labour

employ both permanent and casual labour

9. Has your "normal employment pattern" changed during the 1970s? If it has, could you say how it has changed and why?

How? _____

Why? _____

10. If your answer to question 8 was EMPLOY NO LABOUR, could you say why this is?

11. If you normally employ labour during the year (casual or permanent) do you think you might employ fewer as a result of your FEP worker(s)?

definitely fewer

maybe fewer

no change from normal labour requirement

maybe more

don't know

12. Why did you employ a person(s) under the FEP?

As a result of the lower wage I could afford to employ a worker

As a result of the lower wage I could afford to employ a worker for specific tasks which I otherwise could not have done

As a result of the lower wage I could afford to employ a worker for both general help and specific tasks which I otherwise could not have done

I would have employed a worker even without the FEP

Other (please say what)

13. How long have your FEP worker(s) been employed (or how long were they employed)? If you have had more than one FEP worker, put tick for each one.

Less than one month

3 months, less than 6

6 months, less than 9

9 months, less than 12

12 months or more

14. What are the main things your FEP worker(s) has done? Please give some detail.

-
15. Has your FEP worker(s) done the things for which you hired him?

yes

no

partly

16. If you answer NO or PARTLY to Question 15, please explain:

-
17. Was the work you expected of your FEP worker(s) the sort which anyone could have done without training, or was some skill needed?

some skill and/or training needed
anyone could have done it

the work I wanted done will
be finished

family labour will take over
other (please say what)

29. If the level of subsidy was raised above its present level of one-third (say to one-half) of award wages (tick more than one if you like)

I would probably increase my
number of FEP workers

I would probably keep my present
FEP employees on longer

I would train my workers to take
on more skilled tasks

it would probably make no
difference to my employment
of FEP workers

I would try to substitute FEP
workers for ordinary workers

other (please say what)

30. Do you think that the FEP has allowed you to increase your level of output above what it would otherwise have been?

yes, a lot (say 20 percent or
more)

yes, substantially (between
10 and 19 percent)

yes, a little (between 1 and 9
percent)

don't know

D. PERSONAL

31. Your age _____

32. Dependents living at home

	<u>number</u>	<u>ages</u>
sons	_____	_____
daughters	_____	_____
others	_____	_____

33. Are any of these full or part-time workers on the farm?

yes

no

34. If you answered YES to question 33, could you estimate how much these family members who work part time contribute in terms of worker equivalents, e.g. they do the work of half a full time worker, or two full time workers?

35. Would you like to increase the output of your farm?

yes

no

36. Are you trying to increase the output of your farm?

yes

no

don't know

37. If you answered NO to question 36, could you say why? If you tick more than one, could you place 1 beside the most important reason?

I don't have the financial resources necessary to increase output

I don't need additional income

too much extra work for too little return

my farm is already producing close to its maximum potential

cannot afford the labour I would need

other (please say what) _____

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