The
Economic and Social
Research Institute

SELF-EMPLOYMENT AND THE
UNEMPLOYED

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with
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GENERAL SUMMARY

The Enterprise programme (formerly called the Enterprise Allowance Scheme — Enterprise) was established in 1983 with the aim of encouraging unemployed people to set up their own business. Between 1983 and early 1988 almost 20,000 people had entered the programme. This report looks at the effectiveness and cost of the scheme, concentrating on four major areas. These are:

1. how long do businesses established under Enterprise survive and what sorts of business are most likely to survive longest?

2. what sorts of businesses are established under the scheme?

3. what contribution does the scheme make to creating new jobs?

4. what is the cost of the scheme to the Exchequer?

The Enterprise Programme

Enterprise is run by FAS and is open to all who have been unemployed for a period of 13 weeks or more and are in receipt of Unemployment Assistance (UA) or Unemployment Benefit (UB). It is also open to those in receipt of Disability Benefit or the Disabled Persons' Rehabilitation Allowance. The programme lasts for 52 weeks, during which time the participant receives a weekly allowance in lieu of UA or UB and is expected to establish his or her own business. There is also provision for participants to capitalise either or both of their outstanding Pay Related Benefit and their weekly Enterprise allowance in order to meet the initial costs of establishing a business. Decisions regarding admission to the programme are made by local placement officers in the light of their judgement of the soundness of the business idea proposed by the applicant. Businesses may be sole ventures or partnerships, co-operatives, etc. It is hoped that at the end of the Enterprise period such businesses will be self-sustaining and may even generate new jobs if the new businesses take on employees.

Data

The research reported here is based on interviews with a sample of 438 individuals who entered the scheme between the last quarter of 1984 and the end of the first quarter of 1986. Details of the sampling methodology, response rates, and other aspects of the fieldwork will be found in Chapter 2 of this report. Our survey took place at an average of two years after our sample members had entered the programme.

Business Survival

Twelve per cent of entrants to Enterprise in our sample dropped out of the programme before completing the full 52 weeks. A further 21 per cent of businesses failed during the 13 weeks after the end of the Enterprise period — i.e., once the weekly allowance ceased. After that the failure rate tailed off, so that two years after entering Enterprise, 60 per cent of businesses were still in operation, of which 55 per cent were full-time. Survival rates among those who entered the scheme in 1985 and early 1986 were higher than among those who entered in late 1984.

Business survival appears to be related to certain characteristics of the individual Enterprise participant and to certain features of the organisation of the business. Businesses most likely to survive were those where the participant

was aged 25-44;

had previous experience of the work involved in her/his businesses or had had formal training in the area;

and had at least a minimal level of educational qualifications;

and where the business

operated from a specific premises rather than home;

and had a large, rather than small, initial investment of capital.

In addition, taken by itself, the duration of prior unemployment is a good indicator of likely business success, in so far as businesses set up by those who had spent a short time, rather than a long time, unemployed before entering Enterprise were likely to survive longer.

Types of Business Established in Enterprise

Three-quarters of Enterprise businesses are located in the services sector (in this case including Building and Construction), many of them in areas which are probably already overcrowded with competitors. This limits the scope of the scheme for bringing about net increases in overall employment and may also limit the growth of such firms. Overall 85 per cent of businesses in our sample were in direct competition with one or more similar Irish firms and only 3 per cent were engaged in exporting or import substitution.

Most Enterprise businesses are small, but a few — 10 per cent of surviving businesses in our sample — had a gross turnover of £100,000 or more. However, these larger businesses were found in manufacturing and retailing, giving rise to the suspicion that their growth had occurred at the expense of already existing firms in these areas.

Enterprise and Job Creation

Every 100 businesses still in full-time operation at the time of our survey employed 44 workers on a full-time basis. However, additional full-time employment in those businesses in operation at the time of our survey was heavily concentrated. Eighty three per cent of such businesses employed no one on a full-time basis: thus less than 20 per cent of surviving businesses accounted for all the additional full-time employment in our survey.

The overall job creation effect of the scheme — and thus the impact of the scheme on the unemployment problem — is further reduced by deadweight and displacement. Deadweight refers to the probability that an Enterprise business would have been established even in the absence of the scheme, while displacement refers to the negative effects which Enterprise firms have on the output and, possibly, employment, levels among competing Irish firms. Although both of these concepts are inherently difficult to measure, our best estimates indicate a deadweight level of between 40 and 50 per cent. We beleive that around 90 per cent of all the business done by Enterprise businesses is taken from other Irish firms, and we estimate that for every 100 full- time jobs created under the scheme (in either self-employment or through businesses hiring employees) about 60 full-time jobs are displaced elsewhere in the economy. Deadweight and displacement and our measures of them are discussed in detail in Chapter 4.

Net of deadweight and displacement our estimates are that, two years after entering Enterprise, for every 100 entrants about 34 person-years of net additional employment (in the form of either self-employment or hired employees) will have been created. The effect of the scheme on the numbers registered as unemployed will be a little less than this.

The Cost to the Exchequer

The administrative costs of the scheme and the weekly allowance which participants receive under the Enterprisescheme are more than offset by savings on social welfare and the Exchequer returns (in the form of tax, VAT, PRSI and so on) which the new businesses generate. In addition Enterprise receives a subvention from the European Social Fund. On this basis, then, by the end of the 52 weeks on Enterprise, the Exchequer had, on average, made a profit of almost £2,000 per participant over the expenditure that would have been incurred (chiefly in the form of social welfare payments) had the participant remained unemployed. However, an accurate costing of the scheme should also take account of the deadweight effects (in other words, some of the Exchequer savings and revenue might have occurred even had the scheme not been in operation) and the displacement effects (the offsetting effects arising from the displacement of business and jobs elsewhere in the economy). Taking account of these factors the scheme appears to cost just over £1,000 per participant during

the Enterprise period. In other words, for each Enterprise participant the State spends about £1,000 more than it would had that participant remained on the Live Register. However, since the payments associated with the scheme terminate after 52 weeks while the Exchequer returns from the new businesses continue for as long as the businesses survive, this average cost figure declines in successive years. By the end of the second year after entry to the programme, the per participant cost had fallen to £775.

Similarly the cost of creating one year's full-time employment (in self-employment or as an employee) via Enterprise is around £4,600 if we take the costing at the end of the first 52 weeks, but falls to £2,300 52 weeks later. While it is extremely hazardous to try to project the costs position further forward than this (for reasons discussed in Chapter 5), our calculations (based on assumptions about rates of business survival and levels of VAT, tax and so on accruing to the Exchequer) suggest that the scheme will not break even before surviving businesses enter their fifth year of operation.

Conclusions

We believe that Enterprise makes only a modest contribution towards creating additional jobs and reducing unemployment. The main obstacles to its making a greater contribution are, first, the fact that the majority of Enterprise firms generate no additional jobs; and, second, the high level of displacement among Enterprise firms. Accordingly, we do not envisage Enterprise as being a major programme in combating unemployment, though we feel that it has a minor role to play. Rather, we see Enterprise as having a reduced number of participants more stringently selected (particularly in order to try to minimise displacement) but on whom assistance can be more effectively concentrated. The policy recommendations which are contained in Chapter 8 of this report are advanced with this view in mind.

Chapter 1

INTRODUCTION

1.1 *Introduction*

During the 1970s, rising unemployment encouraged the growth of government programmes which intervene directly in the labour market. In almost all industrialised countries programmes of training and/or job creation were expanded or introduced. In the 1980s, however, a new type of programme has been added to this range: these are often referred to as "enterprise" programmes. Conventional job creation programmes instituted by governments generally fell into one of two categories: either direct temporary job creation (often in the public sector or the so called third sector), or indirect permanent job creation in the private sector (via subsidy programmes, for example). However, enterprise programmes are specifically intended to encourage the unemployed to establish their own businesses and so to create their own jobs. This can be done either through sole ventures, partnerships or co-operatives.

In Britain in particular this development has been viewed as part of what is sometimes termed the enterprise culture. There the Manpower Services Commission (MSC) administers the Enterprise Allowance Scheme, which seeks to support the unemployed in setting up their own businesses.

Similar schemes have been introduced in many other EC countries. They all have, as their aim, the establishing of businesses by the unemployed and they operate via a mixture of loans, allowances, grants and capitalisation of social welfare unemployment compensation. Such programmes (details of which can be found in *Informisep* 21, Spring 1988) are found in Denmark (established 1985); Belgium (1983); Germany (1988); Greece (1986); France (1980); Spain (1985); Luxembourg (1983); Italy (1984 and 1985); Holland (1984) and Portugal (1986 and 1987).

In Ireland a number of programmes fall into this enterprise category. The Community Enterprise Programme is a scheme aimed at helping community groups (broadly defined) to develop and establish businesses, while training programmes such a "Start Your Own Business" and "Self-Employment as a Career" seek to equip would be entrepreneurs with the necessary skills. However, the largest scheme of this type in Ireland is the Enterprise programme. This was set up on a pilot basis in 1983 and nationwide in 1984. Until 1987 it was known as the Enterprise Allowance Scheme.

The programme is run by FAS, having previously been under the control of the National Manpower Service of the Department of Labour. The aim of Enterprise is to encourage unemployed people to start their own business, and it does this by paying them a weekly allowance for 52 weeks in lieu of Unemployment Benefit (UB) or Unemployment Assistance (UA). During this 52 week period participants are expected to set up their own business, either on their own or with others (who may or may not themselves be on Enterprise). It is hoped that at the end of the Enterprise period such businesses will be self sustaining and may even generate additional jobs if the new businesses take on employees.

Little or nothing is known about how long businesses survive after the end of the Enterprise period; and relatively little is known about the balance of costs and benefits flowing from the scheme. Accordingly, this report examines these and other issues.

1.2 *Outline of the Report*

Eight major issues are examined in this paper. These are

1. how long do the businesses set up under Enterprise survive?

2. how many jobs does Enterprise create?

3. what are the levels of deadweight in the scheme? By this we mean the degree to which the ends of the scheme — namely, the setting up of businesses among the unemployed — would have occurred even without the existence of the scheme;

4. what is the extent of displacement of non-subsidised jobs and businesses by the scheme? Displacement refers to the degree to which businesses established under Enterprise subsequently take trade away from unsubsidised firms, and, in the extreme, may cause countervailing job losses among them;

5. what are the net Exchequer costs of the scheme and of the net cost of jobs created by Enterprise?

6. what are the main obstacles facing new businesses?

7. what are the main reasons why businesses fail?

8. which sorts of enterprises and which sorts of individuals are most likely to establish successful businesses under the scheme?

1.3 *Contents of the Report*

In Chapter 2 we discuss the methodology of the research - sampling, design

of the questionnaire, gathering of additional data, and so on — and we refer to previous research into Enterprise and into the EAS in the UK.

In Chapter 3 we present some basic data on our sample of Enterprise participants and address the questions of the survivorship of businesses after the end of the Enterprise period and the level of job creation attributable to the scheme.

In Chapters 4 and 5 we turn to the costs and benefits of the programme. In Chapter 4 we discuss how the programme is to be costed and some of the conceptual and methodological issues involved, notably the questions of how we measure deadweight and displacement. In Chapter 5 we provide estimates of the costs of Enterprise and of its effectiveness in creating jobs and reducing measured unemployment.

Chapter 6 looks at the obstacles facing businesses when they are first set up, and also examines the major reasons for business failure.

In Chapter 7 we turn to the question of what sorts of individuals and what types of business are most likely to be successful and to survive longest.

Finally, Chapter 8 contains a summary of our findings and some concluding remarks, together with a discussion of the relevance of our findings to policy.

In the remainder of this chapter we describe the workings of Enterprise at the time to which our report refers (that is, entrants to Enterprise — or EAS as it was then termed — between late 1984 and early 1986) and discuss the objectives of the programme.

1.4 *The Enterprise Scheme*

Under the Enterprise programme, a person who has been unemployed for 13 weeks or more and is in receipt of either UA or UB may apply to FAS (previously to the NMS) to join the scheme. In addition, persons in receipt of Disability Benefit or the Disabled Persons Rehabilitation Allowance may also join the scheme, again subject to the 13 weeks stipulation. For the unemployed, a period on a training programme (such as those run by AnCO — now FAS — or CERT) counts towards the total of 13 weeks unemployed.

If accepted on to Enterprise the participant receives a weekly allowance of £30, if single, or £50 if married, for 52 weeks, during which time he or she sets up in business. During the Enterprise period the participants are credited with social welfare contributions and preserve their entitlement to social welfare benefits, should they decide to drop out of Enterprise before the completion of 52 weeks or to abandon their business at the termination of the 52 weeks.

Participants are generally accepted on to Enterprise if their projected business appears viable in the light of the local Placement Officer's experience and knowledge and if the applicant has the requisite skills for the business. Applicants may set up as sole operators, in partnerships or co-operatives, subject to certain

stipulations. Furthermore participants may also avail of aid from other schemes to assist the setting up of new businesses. In particular, during the period to which our research refers participants were able to obtain help from the Youth Employment Agency's Youth Self-Employment Programme[1] or Community Enterprise Programme, or from any of the many State agencies which provide advice or financial assistance to business generally.

In order to meet some of the initial costs entailed in setting up a business, participants may be allowed to capitalise either, or both, of their outstanding Pay Related Benefit (PRB) entitlement (if any) up to a maximum of 26 weeks' payments; and their weekly Enterprise allowance. In either case, such capitalisation is only available to those who can provide the first £500 of capital from their own resources.

Capitalised PRB is paid by the Department of Social Welfare, capitalised Enterprise allowance by the Department of Labour. One consequence of capitalising weekly Enterprise payments is that, towards the end of the 52 week period, participants will still formally be on Enterprise — and thus will not be eligible for UA or UB — but will be receiving no weekly allowance. An example may serve to make this clearer. Suppose a participant in Enterprise is allowed to capitalise 13 weeks' payments of his Enterprise allowance. If he is receiving the higher rate, this will yield a lump sum of £650. In addition, he will receive £50 per week for the first 39 weeks of the Enterprise period. However, for the remaining 13 weeks, he will still be an Enterprise participant but will receive no weekly allowance[2].

Participants who have not capitalised any Enterprise allowance are free to drop out of the scheme at any time, regardless of whether or not they have capitalised any PRB. There was an initial rapid growth in participant numbers once the scheme became generally available, as Table 1.1 shows. The numbers then levelled off to about 5,000 participants per annum between 1984 and 1986. At times the numbers entering the scheme have been limited by the imposition of quotas. The programme qualifies for subvention from the European Social Fund (ESF) with 55 per cent of the allowance cost being eligible for refund for all participants aged under 25 or those who are long-term unemployed.

The broad outlines of Enterprise have remained substantially unchanged during its period of operation, though, in practice, the degree of discrimination that has been used when deciding on applications has varied. Recently attempts have been made to introduce more rigorous vetting procedures for potential applicants in an attempt to ensure higher rates of business success. This had

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1. At the time of writing the YSEP is no longer in operation.

2. In some cases, an effective capitalisation is undertaken when the participant secures a bank loan against his or her weekly allowance. In these cases the weekly allowance can be paid directly to the bank concerned.

led to a decline in the numbers entering the scheme. In 1987 2,381 people entered the programme and total expenditure for the year was £6.84m.

Table 1.1: *Annual Recruitment and Expenditure on Enterprise*

Year	Numbers Recruited	Expenditure (£M)
1984*	5,070	5.86
1985	5,862	12.13
1986	5,281	11.27
1987	2,381	6.84
1988**	1,030	1.33

*1984 figure also includes December 1983, the month in which the scheme commenced;
**1988 figure covers the period January to March.

1.5 *Objectives of the Enterprise Programme*

According the the Department of Labour "the purpose of the Scheme is to encourage unemployed people to use their skills and talents to create full-time work for themselves". From this point of view the success or otherwise of the scheme will depend upon the number and duration of small businesses which it supports and encourages. In this report, however, we shall also examine two other effects of Enterprise. The first of these is the overall economic and job creation impact of the scheme: in other words, we will be asking "to what extent does Enterprise address the unemployment problem through the creation of additional jobs?" The second of these is the distributional effect of the scheme: to what extent can Enterprise be said to be discriminating in favour of those who experience the most difficulty in the labour market? Clearly, the restriction of eligibility to the unemployed constitutes discrimination in favour of this disadvantaged group: the question which we shall address is whether or not Enterprise helps those who would otherwise have experienced an above average degree of difficulty in escaping from unemployment.

Chapter 2

RESEARCH METHODOLOGY AND PREVIOUS RESEARCH

2.1 *Data*

The data used in this study come from a sample of entrants to Enterprise between October 1984 and March 1986. Initially a sample of 602 entrants to the scheme during this period was drawn from the files kept by the Enterprise section in the Department of Labour, Davitt House. The method of sampling was based on a straightforward stratified design: approximately equal numbers were drawn from each month, but with the following proportions from each sector: .75 of the sample from those who set up in services; .175 from those who set up in manufacturing; and the balance from the remaining sectors — construction, agriculture; hotel and catering; fishing. This corresponds to the overall breakdown of businesses set up under Enterprise in those years[3].

From these files, extensive information on participants was extracted and stored using a data base package. This information included the participant's name, address, date of birth, marital status and the type of business he or she set up; the date of entry to and exit from Enterprise; details of his/her weekly Enterprise allowance and capitalisation of PRB and allowance, if any. It also included information on the social welfare position of each participant on joining the Enterprise. Since the social welfare position of each applicant must be verified by the Employment Exchange at which they are signing and recorded on one of the Enterprise forms, a good deal of data were available to us. These included the current weekly social welfare income of the applicant; how it was made up (UA, UB, or UB plus PRB and the corresponding amounts of each); and information as to the remaining entitlement to PRB (if any). These latter items of information allowed us to estimate, with a high degree of accuracy, the social welfare payments that the participant would have received had he or she not entered Enterprise.

The main source of information on the sample, however, was obtained via a face to face interview. An initial questionnaire was drawn up in April and May of 1987. This was based partly on the questionnaires used by the Manpower Services Commission (MSC) in the UK in their studies of the UK Enterprise Allowance Scheme and the questionnaire used by Coopers and Lybrand in a

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3. Stratification according to the type of business set up was not possible for the samples drawn from January 1986 to March 1986 because participants were no longer classed according the sector in which they set up in business. Thus, for these three months the samples were drawn at random.

study of Enterprise (or EAS as it then was); and partly on the results of informal discussions with a number of Enterprise participants in different locations in the country.

A pilot survey of 36 participants was undertaken in June 1987 and, in the light of this, the questionnaire was revised. The survey proper went into the field in July and interviewing was completed by the end of August.

The procedure followed in the interviews was to send a letter to each member of the sample setting out the aims of the research and informing them that a member of The Economic and Social Research Institute's interview team would be contacting them in order to make an appointment for an interview. The interviewer contacted the sample member, either by telephone or visit, and sought to arrange a convenient time for the interview. The interviews lasted between 45 and 90 minutes for the most part.

The survey work — which involved 42 interviewers — was carried out by the Survey Unit of the ESRI. Members of the Survey Unit also undertook the coding and entering of the data onto the computer.

In the questionnaire we sought to obtain background information on the Enterprise participant, such as level of educational and other qualifications; previous participation in State schemes; marital and family circumstances; previous employment history; and the duration of unemployment before entering Enterprise. We sought extensive information on the nature of the business itself; the difficulties and the costs involved in setting up in business; and the degree of use of other State schemes. For all businesses we sought data on turnover and income; the amount of employment generated and wages paid; and, for businesses which had failed we attempted to ascertain the reasons for failure as well as the date at which the business ceased to operate.

2.2 Response Rates and Weighting

Details of response rates to the survey are given in Table 2.1. Of the 602 entrants intially sampled, 8 were discarded because, although files on them exist in the Department of Labour, it appears that they never actually joined Enterprise. A further 5 were discarded before interviewing began. Of the remaining 589, interviews were carried out with 438 (28 in the pilot, 410 in the survey proper), yielding a raw response rate of 74 per cent. However, of the 157 non-responses (8 from the pilot, 149 from the main survey), a large proportion were actually non-contacts. In a survey of this kind, a high proportion of non-contact is to be expected for two main reasons. Successful small businesses change premises frequently as they grow: thus, a failure to find the business does not necessarily imply that the business has failed. We sought to overcome this problem, however, by seeking to make contact with the sample members using their home, rather than business, address. However, it is also likely that

Table 2.1: *Response Rate and Survey Details*

Original Sample	602
Dropped	13
	589
Interviews	438
Non-response	151
Deceased	2
Emigrated	31
Moved	20
Non-contact	60
Refused	30
Vacant	8
Raw Response Rate	74%
Adjusted Response Rate	94%
Status of Non-Respondents:	
Still in business	18
Not in business	64
Unknown	6

some of those whose businesses had failed might have moved — possibly emigrated.

In the event, there were 121 non-contacts. Removing these gives an adjusted response rate, based on contacts only, of 94 per cent. Because of the likelihood of non-contact and refusals, interviewers were requested to gather a minimal amount of data on the business even where the respondent refused to be interviewed or where he or she could not be contacted. The final page of the questionnaire contained a "non-contact item" in which the interviewer sought to discover, at the minimum, whether the business set up under Enterprise was still in operation. The results of this are also given in Table 2.1, where it can be seen that of the 154 non-contacts and refusals, 64 were known to be no longer in business, 18 were still trading, and information was missing for the remaining 69.

The high level of response rate to the survey, together with the quality of data that can be obtained via a face to face interview, justifies the use of this method of data collection rather than alternative and less expensive methods, such as postal surveys. Furthermore, the gathering of data even on those who did not or could not agree to be interviewed in full, means that we are able to overcome any biases that might exist in our sample (if, for example, those whose businesses have failed are more likely to refuse an interview). In fact, 67 per cent of businesses were still operating among the 438 participants we interviewed. However, if we take into account the total number for whom we had information and their status (438 + 82 as shown in Table 2.1) we find a

survivorship rate of 60 per cent. Accordingly, the survey data were weighted to reflect a survivorship rate of 60 per cent rather than 67 per cent, and all subsequent figures are based on these weighted percentages (unless otherwise stated).

2.3 *Previous research into Enterprise*

Only one piece of research into Enterprise has previously been commissioned: this was a study carried out for the YEA by Coopers and Lybrand in 1985. The bulk of the data used in the Coopers and Lybrand study were obtained via a postal questionnaire distributed to 954 current Enterprise participants: replies were received from 414. Some further information was obtained from 96 face to face interviews. The major findings of the report were (a) that the level of deadweight was in the region of 33 per cent; (b) the level of displacement was around 70 per cent; (c) the level of viability was about 67 per cent. Viability referred to the likelihood that the business would prove viable in the long-term. Overall, Coopers and Lybrand estimated that the net level of job creation was about 13 per cent, and that the net Exchequer cost of each job created was of the order of £5,550.

Aside from the difficulties of asessing deadweight and displacement, there are two related problems with this research. First, the research took place while just under half of the respondents were still participating in Enterprise and the remainder had only recently left the programme. Thus, the measure of viability is largely based on what respondents believed would happen to their businesses, rather than what actually happened. In addition, no measure of the actual or likely duration of those businesses which survived the Enterprise period could be arrived at. Second, the costings of the Enterprise refer only to the Enterprise period itself: however, if the scheme creates businesses which outlast the period of the Enterprise allowance, then there may be an ongoing benefit to the Exchequer in the form of forgone social welfare payments, income tax and PRSI receipts, and so on, for all or some of the length of time which the business, and the jobs it creates, survives. This is an issue we take up in Chapter 5.

2.4 *The UK Enterprise Allowance Scheme*

Enterprise was modelled closely on the Enterprise Allowance Scheme run in the UK by the Manpower Services Commission (MSC). The MSC has carried out a number of analyses of EAS via postal questionnaires, and has also commissioned research into the scheme (Allen 1986; Allen and Hunn 1985; Allen and Slowther 1986; Department of Employment Gazette 1984 and 1986). The postal surveys of former EAS participants form a regular monitoring of the programme and its long-term effects, while the most recent piece of commissioned research, carried out by Social and Community Planning and Research (SCPR:

see Wood, 1986) provides the most thorough evaluation of the scheme to date. In 1985 SCPR interviewed 540 people who had joined EAS during the first six months of the pilot scheme in 1982 and who had completed 12 months on the scheme. Thus, the survey was carried out roughly two years after the end of the respondents' EAS period.

The report of this research shows that 61 per cent of those who had completed a year on EAS were still trading two years later, and that for every 100 businesses set up under the scheme, an extra 99 employees had been hired. During the year on EAS deadweight is estimated to have been around 45 per cent, displacement around 50 per cent, and the net cost of removing one person from the unemployed register via the scheme during the is reckoned to have been £Stg 1,800.

The results obtained by the SCPR study for Britain and those of the Coopers and Lybrand study for the Irish scheme provide a benchmark against which to compare the results presented here.

Chapter 3

SURVIVAL OF BUSINESSES AND JOB CREATION

3.1 *Introduction*

   In this chapter we present some basic data relating to our Enterprise sample; we examine the percentage of participants completing Enterprise and the duration of businesses set up under Enterprise; and, finally, we look at the level of employment generated by the scheme. However, none of these measures takes account of the possibility of deadweight or of the displacement effects of the scheme. Figures for job creation net of our estimates of deadweight and displacement are presented in Chapter 5.

3.2 *Basic Data on Enterprise*

   Tables 3.1 to 3.4 show

   (i) the number of males and females in our Enterprise sample;

   (ii) the age distribution of Enterprise participants;

   (iii) the duration of unemployment of participants entering the scheme;

   (iv) the number of single/joint enterprises set up under the scheme.

   As we noted in Chapter 2, all the figures presented are weighted according

Table 3.1: *Males and Females Setting up businessesunder Enterprise*

	N	%
Males	378	86.4
Females	60	13.6
TOTAL	438	100.0

Table 3.2: *Age Distribution of Entrants to Enterprise*

Age Group (years)	N	%
Under 25	52	11.9
25-34	167	38.3
35-44	151	34.7
45-54	48	11.1
55 and over	17	4.0
	435	100.0
Age unknown	3	

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Table 3.3: *Duration of Unemployment Among Entrants to Enterprise*

Duration of Unemployment (weeks)	N	%
13 or less	82	19.0
14-26	118	27.5
27-52	97	22.4
53-104	108	25.0
105-156	14	3.2
157 or more	12	2.9
	431	100.0
Duration unknown	7	

Table 3.4: *Single and Joint Enterprises Set Up Under Enterprise*

	N	%
Single	363	83.0
Joint	75	17.0
	438	100.0

to the probability of survival based on the sample returns and the non-responses.

From these tables it can be seen that males considerably outnumber females and that the median age of participants is around the mid-thirties. The majority of entrants have been unemployed for less than a year with the median being around 30 weeks. Most participants set up on their own, but just under 1 in 6 is in some sort of joint business arrangement such as a partnership or co-operative. In some cases the other partner(s) to the business are themselves participating in Enterprise.

3.3 Completion and Survivorship

Table 3.5 shows the status of the businesses set up under Enterprise at the time of our survey (July 1987). As noted in Chapter 2, 60 per cent were still

Table 3.5: *Status of Businesses Set Up Under Enterprise*

	%
(1) Status at time of Survey:	%
Not Operating	39.8
Operating: Full Time	55.3
Part Time	4.9
	100.0
(2) Status at end of Enterprise year:	%
Not Operating	12.0
Operating	88.0
	100.0

in operation, and this can now be seen to be made up of 55 per cent operating full-time, 5 per cent part time.

Since the sample on which these figures are based was drawn from the period October 1984 to March 1986, the actual time during which the businesses still trading have been in operation varies between about 65 and 145 weeks. However, among our sample, the average starting date on the scheme was July 1985: this means that (again, on average) our survey took place almost exactly two years after the sample members had entered Enterprise. As a result, all aggregate results presented relating to the date of our survey can be seen as representing the approximate position of Enterprise entrants two years after joining the scheme or, equally, one year after completing the scheme.

Table 3.5 also shows the percentage of participants still in business at the time they completed 52 weeks on Enterprise. In this report we generally present data pertaining both to the end of the Enterprise period and to the date of our survey. Here we see that roughly 1 in 8 entrants to the scheme drops out before completing the full 52 weeks.

The two parts of Table 3.5 suggest that while 12 per cent of businesses fail during the Enterprise year, a further 28 per cent fail in the following year. Some further data on this are shown in Figures 3.1 and 3.2. Figure 3.1 shows how the proportion of surviving businesses declines with time. Here time is measured in weeks and runs along the horizontal axis. We see a moderate rate of business failure during the Enterprise period followed by a very sharp decline once the Enterprise period ends. This is due to the fact that about 21 per cent of all businesses survive to the end of the Enterprise period but then fail either immediately (i.e., at the end of the 52nd week) or within the first quarter after they have left the scheme.[4] More optimistically, however, the total decline of businesses in weeks 53-102 is heavily concentrated in the first quarter (weeks 53-65), and the loss of businesses appears to tail off subsequently, so that the rate of depletion falls to near zero by the end of the second year in business.

Figure 3.2 shows the proportions of businesses surviving over time in an identical manner to Figure 3.1 except that it shows different survival paths for businesses set up at different times. We have divided our sample into those set up in each of six quarters: 84,4 (October-December 1984); 85,1 (January-March 1985) and so on to 86,1 (January-March 1986). Figure 3.2 shows very clearly that the rate of decline in the post-Enterprise period (after week 52) is much greater among businesses set up in the last quarter of 1984 than it is for those set up in 1985 or early 1986. Over the latter five quarters the survival paths are remarkably similar. In other words, rates of survivorship of the businesses

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4. We take up the question of why businesses fail in Chapter 6 of this report.
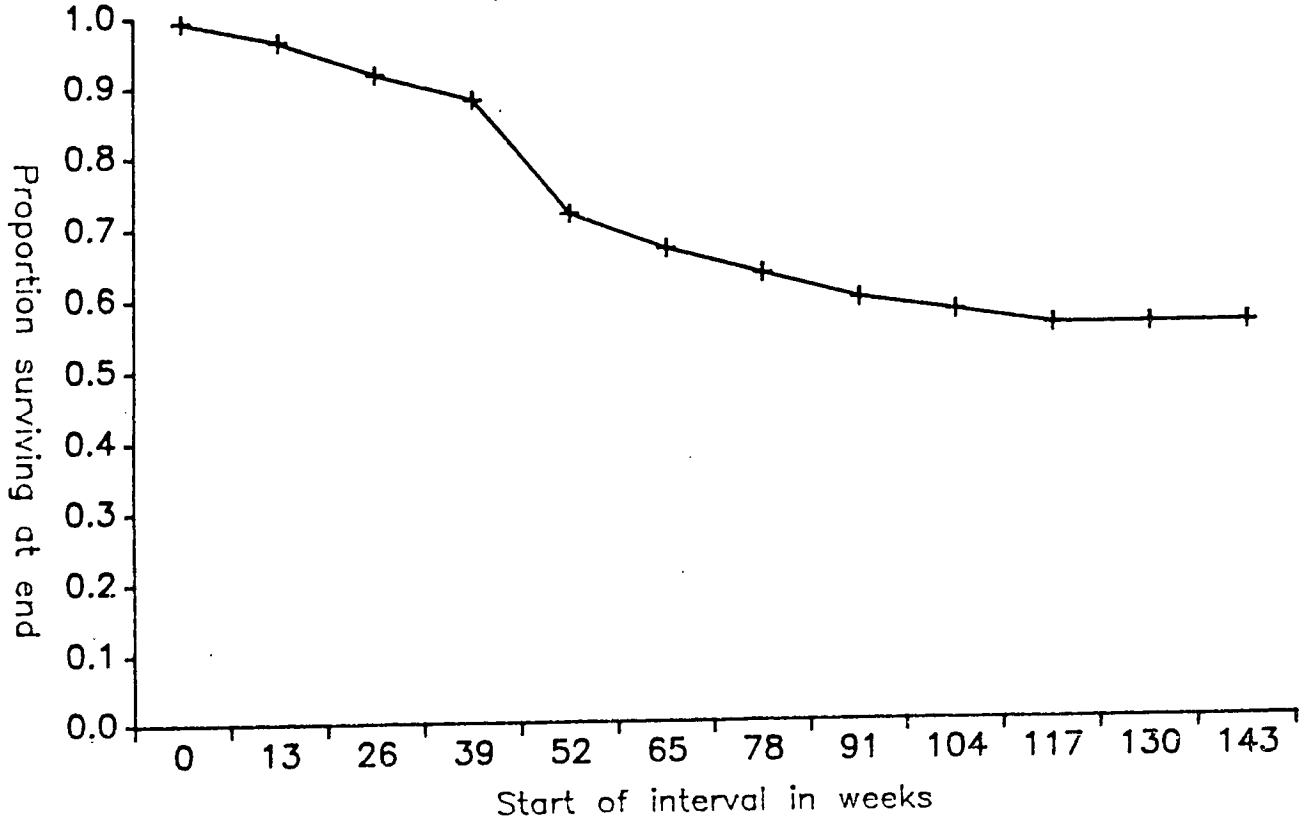
Fig. 3.1: Survivorship of businesses
set up under EAS

Fig. 3.2: Survivorship of businesses
broken down by quarter started

Legend:
+ 84-4
× 85-1
□ 85-2
○ 85-3
◇ 85-4
▫ 86-1

Y-axis: Proportion surviving at end

X-axis: Start of interval in weeks
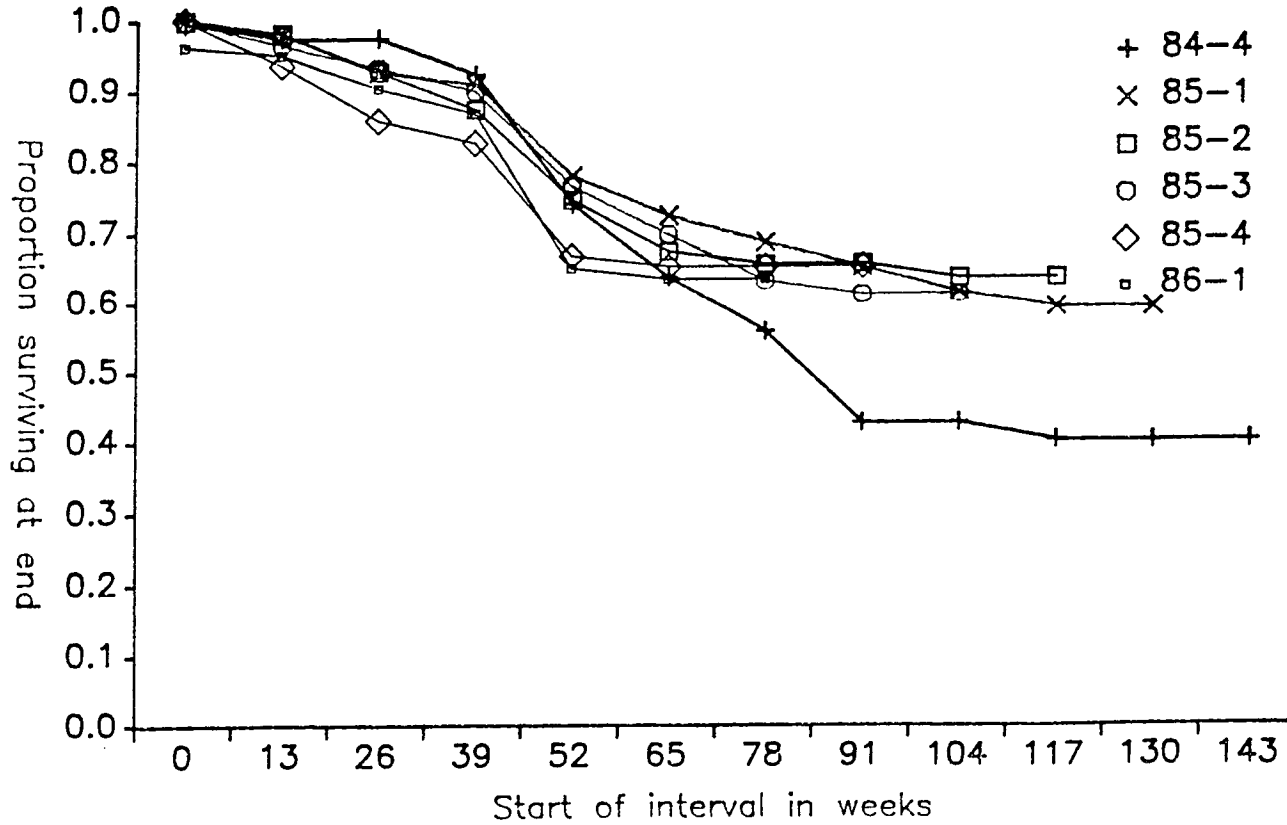
improved among participants joining Enterprise in 1985 and subsequently when compared with those who entered the scheme in 1984.[5]

3.4 *Job Creation and Employment*

Enterprise creates jobs directly in two ways: by helping the unemployed to set up businesses to provide a job for themselves; and through the additional jobs that the business generates. Turning first to the participants themselves, we see that, by the end of the Enterprise year, 88 per cent were in self-employment, and that, a year later, 55 per cent were in full-time self-employment. In other words, for every 100 participants, 88 will have jobs after one year, 55 after two. But of course, the total job creation impact of the scheme is not fully captured by these figures, since businesses which cease to operate will have contributed some person-years of employment also. Overall, at the end of the Enterprise year, for every 100 entrants, 93.5 person-years of work had been created, while, by the end of two years (and allowing for the contribution of businesses run on a part-time basis) this had reached 160.1 person-years.

Turning to the additional employment generated by these businesses, data on this are given in Table 3.6. The top portion of the table shows the position at the time of the survey in regard to the current employment of four categories of workers:

(1) full-time employees;

(2) part-time or short-time employees;

(3) Other workers — such as apprentices; Vocational Preparation and Training Programme (VPTP) placements; Work Experience Programme (WEP) placements; and full-time workers currently on the Employment Incentive Scheme (EIS)

(4) the total workforce.

The first 8 columns of the table headed 0, 1, etc., show the percentages of surviving businesses which had this number of employees. So, the vast bulk

5. This difference accounts for the fact that the line in Figure 3.1 falls below a level of 60 per cent survivorship. The survivorship line in Figure 3.1 is based on the entire sample for part of its length, but, moving to the right (i.e., the longer time durations) it becomes based on only those sample members who could have survived for a sufficient period. In other words, the line is based on successively earlier samples, so that, at its furthest right, it relates only to those sample members who joined Enterprise in 1984. This can perhaps be made clearer by noting that in Figure 3.2, the lines relating to each quarter are of different lengths, reflecting the fact that for those of our sample drawn from the later periods (such as 86.1) we have "observed" them for a much shorter time than we have those who entered the scheme in late 1984 or early 1985.

of still trading businesses employed no one at the time of our survey: 85 per cent had no full-time employees; 91 per cent had no part-time employees; 93 per cent had no WEP or VPTP placements or apprentices; 77 per cent had no employees whatsoever. The ninth column shows the average numbers employed in all businesses still operating, while column (10) presents the average over all business whether operating or not (i.e. the number of employees in the sample as a whole divided by the original number of entrants to the scheme). This latter figure allows us to say that, for every 100 entrants to Enterprise, two years later they will have generated a further 16.5 jobs in full-time employment, in addition to the 55 of them that will still be in full-time business.

The lower part of Table 3.6 shows the position in respect of full-time employees at the end of the Enterprise year. Of those businesses which complete the year, the average employment level was one full-time employee for every 5 businesses.

The figures in Table 3.6 present static data, relating only to two points in time. As a means of measuring the employment generated these figures could be misleading since they do not tell us, for example, how long employees had been employed. More valuable, for this purpose, is to look at how many person-weeks of employment are created by Enterprise businesses. Taking full-time employment now to include apprentices, and also employees on EIS and WEP, it transpires that, for every 100 entrants to Enterprise, 16.8 person-years of full-time employment for employees will have been generated by the end of the Enterprise year. By the time of the survey the 438 entrants in our sample had generated a total of 7,200 person-weeks of full-time employment for employees.

Table 3.6: *Employment in Businesses in Operation*

(1) At Survey:									Average employees among those in business	Average employees overall
No. of Employees	0	1	2	3	4	5	6-10	>10		
% ages of operating businesses:										
Full-time employees	85.4	6.9	3.8	2.3	0.0	0.4	0.8	0.0	0.275	0.165
Part-time employees	90.8	4.2	3.1	0.4	1.1	0.0	0.8	0.4	0.253	0.152
Other (Apprentices, WEP VPTP, etc.)	92.7	5.0	1.9	1.1	0.0	0.0	0.0	0.0	0.112	0.067
Total	77.0	9.2	6.5	1.9	2.7	0.8	1.5	1.1	0.640	0.384
(2) At end of Enterprise period:										
Full-time employees	88.0	5.7	3.8	1.9	0.0	0.8	0.0	0.0	0.200	0.168

On this basis we can suggest that, within two years, an additional 31.9 person-years of full-time employment for employees will have been generated per 100 entrants to the scheme.

In fact, the businesses in our sample generated more employment than these figures suggest. However, the figures we present take account of the fact that some of our sample members were involved in partnerships, co-operatives and so on, and that, as a result, not all the employment generated could be attributed to their personal participation in Enterprise. Take the case of a member of our sample who owned 50 per cent of a partnership. In this case we would have attributed half the person-years of employment generated by the business to our sample member. Failure to do this, of course, could lead to instances of double counting (if, for example, the other partner was also on Enterprise and happened to fall in the sample) and would, in all cases, lead to an overestimate of the job creation effects of the scheme.[6]

If we include the amount of self-employment generated by the scheme, then we find that, at the end of the Enterprise year, every 100 entrants to the scheme will have generated 93.5 person-years of self-employment plus a further 16.8 person-years of full-time employment for employees, yielding a total of 110.3 person-years. At a point roughly corresponding to a further year later, the total will be 192.0 person years of employment: 160.1 person-years of self-employment plus 31.9 person-years of full-time employment for employees.

6. The figures in Table 3.6 are not weighted in this way however.

Chapter 4

DEADWEIGHT, DISPLACEMENT AND METHOD OF COSTING

4.1 *Introduction*

This chapter and the next are taken up with the assesment of the Exchequer costs of Enterprise and the balance of the costs and benefits of the scheme. Our estimates of these will be found in Chapter 5. The purpose of the present chapter is to deal with a number of the conceptual and methodological issues which are raised in the process of attempting to cost Enterprise. In Section 4.2 of this chapter we set out the definitions of our various measures of cost and explain each of the components that go to make up the financial inflows and outflows associated with the scheme. In the appendix to Chapter 4 we set out exactly how we measured each of these components. In Section 4.3 we discuss what we mean by deadweight and explain how we went about measuring it. In Section 4.4 we deal at some length with the issue of displacement: we discuss the various ways in which it can arise and we present our estimates of displacement and explain how we sought to measure this. It must be recognised, however, that a considerable degree of uncertainty surrounds any such measure of displacement.

4.2 *Costing the Scheme*

Broadly speaking, estimates of the Exchequer cost of Enterprise per participant can be viewed in three ways. First, we might choose to look only at the *gross costs*, defined as the *outflow of funds associated with the scheme*. In this case we take these to be:

(1) the payment of the Enterprise allowance and any capitalisation of pay related benefit (PRB);

(2) administrative and other overhead costs associated with the scheme;

The inclusion of the PRB component in (1) may strike some readers as unusual: clearly gross costs as defined here will not, accordingly, correspond to the gross costs of the Enterprise budget, since PRB is paid by the Department of Social Welfare. Nevertheless, because we are examining the overall Exchequer costs, it becomes necessary to take account of all expenditure incurred by the State as part of the Enterprise in respect of each participant (in so far as this is practicable).

The second perspective on costing Enterprise is to examine what we term

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net costs, which we define as *outflows minus inflows* — or, gross costs minus cash inflows. These inflows we take to be:

(3) payments by the European Social Fund in respect of certain categories of participant in Enterprise;

(4) the social welfare payments forgone (i.e. that the participant would have received had s/he not entered Enterprise);

(5) income tax and PRSI paid by the individual participant plus the VAT yield (if any) from the business;

(6) the increased expenditure taxation paid by the individual due to the differential between his/her income from the business and the income s/he would have received under social welfare;

(7) *tax and PRSI* (employer and employee) paid in respect of any employees the business has;

(8) social welfare· payments forgone by employees.

This list is far from complete: for example, it excludes the marginal increase in indirect tax paid by employees of the business. It also fails to take into account potential savings that might be made by virtue of the scheme in areas such as the Differential Rents Scheme and in discretionary payments by Health Boards. More broadly, it takes no account of savings that might arise in expenditure in, say, the health services. Since unemployment appears to be linked to poorer health, when the unemployed join Enterprise their health might be expected to improve, possibly leading to savings in health expenditure.

While items such as these ought, strictly speaking, to be included in any set of costings, they are virtually unmeasurable in anything but the most detailed and therefore small scale studies. Furthermore, their impact on the overall balance of costs is likely to be slight when set against the items included above.

In relation to the items included, the following points might be made. Item (6) could very well be negative if the income derived from the business plus the Enterprise allowance were less than the individual would have received had s/he been receiving social welfare payments. Item (8) must be included even if the actual employees hired had not previously been receiving social welfare payments. This is because, since these jobs (taking no account, as yet, of deadweight and displacement) are additions to the total stock of jobs in the economy, they can be presumed to have the effect of removing individuals from receipt of social welfare and transferring them into the employed labour force. However, there will not be a one to one relationship between jobs created and reductions in the number claiming UA or UB, since a proportion of all new jobs created are known to be filled by persons who were not previously registered

as unemployed. That is to say, the supply of labour is itself elastic with respect to demand. A number of estimates of this elasticity have been made, and we discuss these in the appendix to this chapter. We operationalise this issue by weighting item (8) by a variable representing what we term the "Live Register Effect" (LRE for short) which represents our estimate of the probability that a job created by a business set up under Enterprise leads to a reduction in measured unemployment and thus leads to a saving in social welfare. This variable is also used to weight the job creation figures which are given in Chapter 5, so that we can estimate not only how many jobs Enterprise creates overall, but also what effect the scheme has on measured unemployment. Finally, we note that, in item (8), the choice of level of payment forgone must be a nominal or notional figure. Details of how all of these components were measured and also of the construction of the Live Register Effect measure are given in the appendix to this chapter.

The third perspective on costing Enterprise is to look at what we might term the true costs per place or *overall costs* which we define as *net costs weighted to make allowance for the levels of deadweight and displacement.*

Deadweight refers to the extent to which the returns on a particular investment would have occurred even in the absence of that investment. In the case of Enterprise deadweight arises to the extent that individual participants would have set up businesses even in the absence of the scheme. This includes not only those who would have set up at the same time but also those for whom the effect of Enterprise was partial in the sense that it allowed them to set up in business earlier than they might otherwise have done. Displacement refers to the extent to which businesses set up under Enterprise take trade away from existing firms (and, in the extreme, cause redundancies or closure). One way in which this could occur would be if the Enterprise subsidy allowed these new businesses to offer goods and services at a price below the "going rate", thus giving them an advantage over unsubsidised operations.

In evaluations of programmes such as Enterprise, deadweight and displacement are usually measured in terms of weights varying between 0 and 1 for each participant (although, as will be shown in Sections 4.3 and 4.4, we operationalise displacement in a somewhat more elaborate manner). From the point of view of costing the scheme this means that we must weight our estimates of gross and net costs by these measures. When allowing for deadweight and displacement the outflows (gross costs) remain as they were, the inflows that derive from the businesses (such as VAT receipts and so on) are diminished to reflect inflows only from businesses that would not have been established in any case at that time and which do not displace existing businesses.

4.3 *Deadweight in Enterprise*

4.3.1 Measuring deadweight

In general, deadweight measures seek to reflect the extent to which the returns on a particular investment or a particular programme would have occurred even in the absence of that investment or programme. The central difficulty entailed in assessing deadweight lies in its counter-factual nature: we are asking "what would have happened to participants in a particular programme if the programme had not been undertaken?". How we set about answering this depends on the particular programme and the circumstances surrounding it, though, broadly speaking, there are only two approaches. These involve either using a control group (broadly defined) to observe what happens to similar individuals who do not participate and then comparing them with a group of participants; or by asking participants what they think they would have done had the programme not been available to them. The latter strategy is obviously not feasible in the case of training programmes whose aim is to make participants more employable and increase their chances of getting a job: in such a case the control group approach would be the appropriate choice. On the other hand, in examining a scheme like Enterprise, the control group approach is not feasible. This is because the scheme is such that it is almost inconceivable that any unemployed person who wanted to set up in business should do so without joining Enterprise. More significantly, perhaps, any unemployed people who do set up without recourse to Enterprise cannot be used as a control group because they must be assumed to be quite unrepresentative of those who did in fact utilise the scheme.

We sought to measure the level of deadweight by including, in our questionnaire, a question modelled on the deadweight item that the MSC administers to entrants to their EAS. This consisted of the following item:

"Supposing, for a moment, that EAS had not been in operation at the time you set up your business. Do you think that you would have been able to set up in some form of business in any case — even without EAS?"

Respondents who answered probably or definitely not to this item are assumed to have zero deadweight. Respondents who answered that they definitely or probably would have set up were then asked if they would have set up the same kind of business and if they would have set up in business at the time that they did or later. Those who said they would have set up at the time they did were assigned a score of 1 on the deadweight item. If the respondent said s/he would have set up in business later they were asked to give a rough indication of how much later they thought this would have been. These respondents were given a score between 0 and 1 reflecting the proportion of their total time in business during which they would have been operating even without the scheme. For example, if a business survived for 16 months in all and the respondent said

that without Enterprise s/he would have set up the business six months later than s/he actually did, his or her deadweight score would be given by:

$$(16-6)/16 = .625 \qquad (4.1)$$

In other words, our measure for deadweight seeks to reflect the proportion of the total time the business was operating for which it would have been operating even without Enterprise. Within our sample, 62 per cent of respondents said that they either probably or definitely would have set up in business even in the absence of Enterprise, and our overall measure of deadweight is .495. In other words, even without Enterprise, the businesses in our sample would have been, on average, in operation for about half the time that they actually were.

We might also note that this measure of deadweight is restrictive, in so far as it permits of only one counterfactual option — that is, had the participant not joined Enterprise, he or she would otherwise have either remained on the Live Register or would have set up in business in any case. Clearly, however, there are certain other alternatives. In particular, an unemployed person is likely to leave the Live Register for one of two chief reasons, either emigration or the acquiring of a job. The existence of this form of deadweight can, quite obviously, influence the assesment of the costs of Enterprise. Suppose, for example, that, had the scheme not been in operation, a participant would otherwise have acquired a job at much the same time as he entered Enterprise and that this job would not have displaced an employee elsewhere in the economy. In this case, then, some of the returns to the Exchequer that accrue from Enterprise (notably social welfare savings) could not now be attributed to the effects of the scheme, while others could well be more than wholly offset (for example, an employee might well pay more income tax and PRSI to the Exchequer in the short run than would someone who sets up a small business). Suppose, on the other hand, that this person, when he or she obtained a job, did displace another worker. In this case, if the displaced person entered the Live Register and received a higher level of social welfare payments than the person who had displaced him/her, then the social welfare savings attributable to Enterprise would be even greater. Clearly, the possible counter-factual scenarios can quickly become very numerous and attempts to disentangle their ramifications for the costs of Enterprise become increasingly tortuous.

Our measure of deadweight is restrictive in another way, in so far as it does not allow for the possiblity that a business, indentical to the one set up under Enterprise, would have been established by someone else were it not for Enterprise. Consider the example of someone who sets up a coal delivery service under Enterprise in an area where such a service did not previously exist. It is possible that had this business not been established a coal merchant in an adjoining area would have extended his operations to cover this extra area. In

such a case the Exchequer would have received some extra revenue from this added business for no investment. This extra revenue would include increased tax returns from the business and (had the business hired extra workers to expand its operations) income tax, PRSI and, possibly, savings on social welfare payments.

The issues discussed above can be systematised if we separate the returns to the Exchequer from an Enterprise business into three types:

A. Returns from the business — VAT receipts, and, in the longer term, corporation income tax.

B. Returns from employment created — tax and PRSI receipts from the Enterprise participant and any employees he/she hires.

C. Returns from a reduction in measured unemployment — the value of the social welfare that would otherwise have been paid.

Our measure of deadweight allows only for the possibility that all three observed types of return might have been generated in any case — in other words if the business had been established by the same person even without the aid of Enterprise. However, the other eventualities which we have now discussed introduce the possibility that additional deadweight might have led to the generation of only some of these three types of return. For example, if the participant would have emigrated (in the absence of Enterprise) then the Exchequer would have received C but not A or B. Had someone who was not unemployed established the same business, the Exchequer would have received A and possibly some or all of B and C. Had the unemployed person acquired a job which did not displace an employee elsewhere in the economy, the Exchequer, in that case, would have received B and C in respect of that person, but not A. This particular possibility is of potential significance in so far as the median duration of unemployment among entrants to Enterprise, as Table 3.3, shows, was around 30 weeks for our sample. This is somewhat less than the mean expected duration of unemployment in the middle of 1985 which stood at between 35 and 40 weeks. Thus, it is reasonable to suppose that the majority of participants had, at the time they entered Enterprise, a better than average chance of leaving the Live Register through acquiring a job. Clearly, however, this source of deadweight will, in its turn, be offset if we can assume that because the participant did, in fact, join Enterprise, some other member of the unemployed now acquires this job.

By confining deadweight in the way we have, we are implicitly assuming the following: (i) no other person would have established such a business had the Enterprise participant not done so (though the participant him or herself might have done so without Enterprise); (ii) the individual Enterprise participant would

not have left the Register via emigration; and (iii) had he or she left the Register to take up employment, then he or she would have displaced a worker who was identical in all respects (e.g. who would have been yielding the same level of tax and PRSI returns, who would have the same social welfare entitlements, and so on). These assumptions, while they are inevitable (given the difficulties of taking account of all possible sources of deadweight) mean that our measured level of deadweight may understate the true level. While we do not feel that this is likely to have led to any significant underestimate of the costs of Enterprise, it becomes relevant in our discussion of the possible effect on costings of the continued existence of Enterprise businesses after the time of our survey, and this is an issue we address towards the end of Chapter 5.

4.3.2 Incorporating deadweight in enterprise costings

In Chapter 5 we present estimates of average costs per participant at two points in time — at the end of the Enterprise year and at the time of our survey, which took place, on average, one year after our sample members had completed Enterprise. In order to incorporate deadweight in our costings we used two slightly different methods, which we can label methods A and B.

In arriving at the costings at the end of the Enterprise year we weighted the returns to the Exchequer from each Enterprise business (social welfare forgone, income tax paid, and so on) by, among other things, a function based on a deadweight measure defined as the proportion of the actual time in business during the first year that the firm would have been operating even without Enterprise. To take our example of a business lasting 16 months whose start-up date was advanced six months by the scheme, this would yield:

$$(12 - 6)/12 = 0.5 \tag{4.2}$$

As can be seen, this is slightly smaller than the measure shown in Equation 4.1, which is an overall deadweight measure. Measure 4.2 was used in both methods A and B.

In costing the scheme at the time of the survey, however, the two methods used different deadweight measures. Method A used the deadweight as given in Equation 4.1 and applied this to the cumulative returns generated by each business during the entire period it had been in operation. Thus, in our hypothetical case, this would have involved weighting the entire returns over the 16 months by a function of a deadweight measure equal to .625. Method B, however, used a deadweight measure based on the proportion of time after the end of the Enterprise year that the firm would have been in business even without the subsidy. In our hypothetical case deadweight would thus have been equal to one. In other words, since the business would have been established in any case after six months, it contributes nothing further to the scheme in

any subsequent period. In the case of method B, the total cost at the time of the survey was then given by the sum of the costs and returns at the end of the Enterprise period (using the deadweight measure shown in Equation 4.2) and the costs and returns in the post Enterprise period (using the deadweight measure just described).

While the costs estimated at the end of the Enterprise period are by definition identical using methods A and B, so too are the costs at the time of the survey. Taking the discounted costs at the later date, method A yields an overall cost of £769, while method B gives £762. Accordingly for ease of exposition we report only the method A costs.

4.3.3 Is deadweight necessarily undesirable?

Use of the term deadweight in the context of public expenditure programmes generally refers to a gain which accrues to participants by virtue of the fact that they are given some incentive — such as a subsidy — to do something which they would have done in any case. However, it does not necessarily follow that such deadweight expenditure will not have positive effects: this will depend upon the way in which the recipients of the windfall gain use it. In the case of Enterprise it seems very likely that the windfall gains that accrue to participants will have positive effects. For example, although an unemployed person may well have set up in business even without the Enterprise allowance, the fact that he or she does in fact receive it may make the business more viable than it would otherwise have been. Thus, even where deadweight is entire, there may be some return to the Exchequer (though this will be at least partially offset by the displacement effects). The amount of such a return is impossible to quantify. We can suggest, however, that, for any public expenditure, this return will be greater than zero (net of other effects) but will probably be less than it would have been had there been no deadweight. The most obvious effect of deadweight, however, is that it transfers control of the subsidy to the recipient: rather than the transfer being for the specific use intended by policy makers, its use is now at the discretion of the recipient.

4.4 Displacement

4.4.1 The concept of displacement.

Displacement refers to the effect whereby subsidised firms take business away from those which are unsubsidised. In the case of Enterprise such displacement will reduce the returns to the Exchequer since the flow to the Exchequer from Enterprise businesses will be partially offset by the loss of revenue from firms whose output is being adversely affected through displacement of trade by Enterprise businesses. Displacement may also reduce the job creation effects

of Enterprise in so far as the scheme displaces actual or potential employment in those same firms.

The level of displacement caused by Enterprise will depend upon a number of factors. In general, businesses which are aimed at import substitution (where no other Irish firms are already so engaged) will not cause any displacement. The same is true of businesses which exclusively serve the export market — except in the reasonably unlikely event that they displace other Irish exports. Likewise, enterprises in agriculture, where there is no inter-producer competition, and probably fishing, are unlikely to lead to displacement. However, most businesses established under Enterprise are selling goods and services on the home market. As we see in Table 6.1, three-quarters of Enterprise participants set up in the non-traded services area (defined to include building and construction). Even those Enterprise businesses established in what are often regarded as internationally tradeable sectors — such as hotels and catering and also manufacturing — are, in fact, virtually all supplying a very local Irish market. For example, the Enterprise firms in the Hotel and Catering sector are all engaged in catering, with cafes and pubs making up 2 per cent of all Enterprise businesses, while manufacturing includes a large proportion of, for example, dressmakers; soft toy making; welding; wood products and joinery.

Because most Enterprise firms are selling goods or services on the home market (in some cases a very local market), it follows that, if they are successful (i.e. if they survive) and gain a share of the market they must be taking their market share from other firms in the market. This will be true regardless of whether the particular market is growing or static. In the former case, displacement by Enterprise businesses will cause displaced firms to have lower output growth than they otherwise would have had. In the latter case displacement will lead to lower output.

Such displacement may be direct — in which case Enterprise businesses will be taking actual or potential trade from firms producing the same good — or indirect. Indirect displacement refers to the case in which demand for the good or service produced by the Enterprise business (call it good X) will lead to a substitution effect, so diminishing the demand for some other good, Y. For example, suppose a cafe is established in a small town via Enterprise. There may not be another cafe in the town, so there is no direct displacement of pre-existing suppliers of the good. But if the cafe flourishes then this can only be because its customers are spending less than they otherwise would have on something else (good Y) in order to pay for meals in the cafe. In this case, if Y is not imported, then there will be some displacement effect not from other firms producing X but from firms producing Y. Of course, it is possible that consumption of imported, rather than domestic, goods or services will be forgone and thus the overall displacement effect will be lessened. Furthermore, the fact

that, when compared with Britain, the share of imports in consumer spending is rather higher (at around 35 per cent compared with 20-25 per cent in Britain), might suggest lower indirect displacement in Ireland. However, such an optimistic assessment must be tempered by two considerations. First, within Enterprise direct displacement is likely to be much more significant than indirect, because the great bulk of Enterprise businesses are competing directly with local firms supplying the same good or service. Data in relation to this are shown in Table 4.1 which is based on items on our questionnaire asking participants whether

Table 4.1: *Level of Competition faced by Enterprise Businesses from Similar Irish Firms in their Own Market Area*

	N	%
In direct competition with other firms	374	85.4
No direct competitors in market area but selling non-traded good or service	50	11.5
Exporting/mainly import substitution/or unlikely to have Irish competitors	14	3.1
Total	438	100.0

or not they were competing against Irish firms within their own market area and what goods or services they were producing. Of all respondents, 85 per cent had local competitors, while less than 5 per cent could be said to have no Irish competitors by virtue of being orientated towards export markets or import substitution (where no other Irish firms were already so engaged) or being a farmer for whom inter-producer competition was unlikely[7]. Secondly, the pattern of indirect displacement and whether it affects domestically produced or imported goods or services will depend on the elasticities of substitution between the good produced by the Enterprise business and all other consumer goods. However, it seems most reasonable to suppose that these elasticities will be highest for broadly similar goods. Thus, if a consumer is spending more on, say, visits to a newly established restaurant, it seems more likely that this will result in a decrease in spending on visits to pubs or on the purchase of food for home consumption than on, say, expenditure on manufactures. Without knowledge of the appropriate elasticities of substitution it would be unwise to assume that changes in consumer spending patterns brought about by the establishment of

7. Although just over five per cent of Enterprise participants fall into the NACE classification categories Agriculture, Fishing and Forestry (see Table 6.1), in only one case did this entail an individual establishing a farm producing a good which received guaranteed prices under the CAP. The largest single category of enterprises in this group — comprising 50 per cent of it — was made up of nurseries and landscape gardeners. In other words, while it might at first sight appear that firms in the category Agriculture, Fishing and Forestry would be unlikely to be in competition with other Irish firms, the detailed examination of individual cases reveals that this is not so.

Enterprise businesses are necessarily shifted towards a lower import content.

Displacement of business in an expanding market, then, will have the effect of lowering output *growth* among the firms so affected; whereas, in a static market, it will lower their output. Likewise, this displacement may affect employment by causing displaced firms to have lower employment growth (in the case of an expanding market) than they would have, had the particular Enterprise business not been established; or lower employment (in the case of a static market). However, even should displacement of business occur, it is by no means certain, *a priori*, that this will entail a displacement of employment. It could be that firms which are affected by displacement can absorb this without reducing their employment or rate of employment growth. Whether such job displacement occurs will depend on a number of factors. Taking the case of direct displacement, important considerations will include the size of the new business relative to those already existing; the size of firms in the market; and the number of firms operating in the market. Other things being equal, if the new business is taking a relatively large share of the market, then there is a greater likelihood of job displacement. If the market is supplied by small, rather than large firms, then job displacement is also more likely (since larger firms can probably more easily absorb a displacement of business without reducing employment or slackening employment growth by means such as restricting overtime). Finally, if the number of firms in the market is small, then, again, displacement of business is more likely to translate into job displacement (since, if there are a lot of firms, each of them may lose only a very small part of their market share, whereas, if there is, in the extreme, only one other firm, then all the Enterprise firm's gain will be that firm's loss). The typical Enterprise business in Ireland appears to operate in a small market supplied by a variable number of one or two person firms (much like the Enterprise firm itself). Data from our Enterprise participants show that Enterprise firms are generally operating on fairly tight profit margins, and it seems not unreasonable to assume that their competitors are in a similar position. Hence, any gain of market share on the part of the Enterprise business is likely to have a relatively large impact on these competing firms, which these firms may be unable to meet in any way other than reducing recruitment or shedding workers or, in the extreme, going out of business.

4.4.2 Measuring displacement

Measuring deadweight and displacement presents formidable obstacles. Of the two, however, displacement is much the more problematic for the reason that questionnaire data cannot hope properly to take account of all the possible ways in which displacement might occur. In general, questionnaire items can attempt to discover whether, for example, businesses are competing with existing firms or whether the market for the Enterprise business's goods or services is

domestic or foreign. However, even allowing for the fact that the individual respondent's perception of the overall market situation may be inaccurate — for example, he or she may not necessarily be aware of the true level of competition in a particular field — there may be, as we noted above, indirect displacement from one market into another. It has to be admitted, therefore, that questionnaire items are of limited usefulness in this case, and estimates of displacement must, accordingly, be based, at least partially, on other criteria. In general this involves some discussion of the sector in which the business is located and the use of assumptions concerning the likelihood that businesses of a particular type are or are not displacing existing businesses.

Implicit in our earlier discussion of displacement is that the problem can be broken into two parts: first, to what extent do Enterprise businesses displace business or trade from other firms? Secondly, to what degree does this displacement affect employment? In what follows we describe the construction of two displacement measures corresponding to these issues: displacement-B measures the effect of displacement on business and thus output, while displacement-J measures the effect of displacement on jobs and employment. When we come to make our costings we use our B measure to allow for the effect of displacement on the returns from the business to the Exchequer in the form of VAT, income tax, PRSI and expenditure tax (returns A and B as they were labelled in our discussion of deadweight) while we use measure J to weight any returns that stem from reduced unemployment (return C earlier) — such as savings in social welfare payments. We also use J to allow for the effect of displacement on our job creation figures.

4.4.2.1 Displacement of business

In constructing displacement measure B we first assumed that the following categories of Enterprise businesses created no displacement:

firms engaged in exporting

firms engaged wholly in import substitution and who had no Irish competitors

enterprises in fishing, forestry and agriculture unless they specifically stated they were in competition with other Irish enterprises.

For all other Enterprise businesses we assumed — in line with our earlier discussion — that all the business which came to them did so at someone else's expense. If a firm reported having direct competitors it was assumed that displacement was also direct and we set its value to one (total displacement of business from competitors). The remaining Enterprise participants, virtually all of whom sold to a very local market, claimed to have no direct competitors.

In this case we assumed displacement to be indirect and set it to a value of .65. This accords with our earlier discussion of the import content of consumer expenditure, and is based on the assumption that 35 per cent of the growth in the business of an Enterprise firm which displaces indirectly is at the expense of overseas firms exporting into Ireland.

This measure, which we call an unadjusted displacement-B measure, reflects the extent to which Enterprise participants displace trade from other Irish enterprises. It has a mean value of .93, suggesting that 93 per cent of Enterprise business is, in fact, taken from other Irish firms.

We shall want to use this figure in order to adjust the returns to the Exchequer from Enterprise participants to allow for such displacement. This is usually done by weighting the relevant returns (VAT, tax and so forth) by one minus the displacement value. However, this is likely seriously to understate the loss of revenue caused by displacement (implicitly equal to the observed returns multiplied by the displacement value) because of the different rates of tax payable by the new Enterprise business and the business from which it is taking trade. The latter would have been paying higher rates of tax on the displaced trade than will the Enterprise firm which captures this trade, since, for the former, this is business at the margin, whereas it is not in the case of an Enterprise participant. Thus, for example, the tax lost through displacement will be at a marginal rate, whereas the tax gained from the Enterprise firm will be at an average rate. For example, we assume that Enterprise participants pay no income tax in their first year: but to the extent that they displace business from other firms which pay tax, this will entail a loss of tax revenue to the Exchequer. This loss will equal the income from the amount of business displaced multiplied by the marginal tax rate on income to which the competitors who lost the trade are liable.

We compensated for this in two areas — VAT payments and income tax paid by the Enterprise participant. In relation to income tax, we estimated the tax that would have been payable on the amount of business done by Enterprise firms during the Enterprise year had that business been done by an individual who was paying income tax. We then weighted this figure by our displacement-B measure. We made the same calculation for the post-Enterprise period for those Enterprise firms which paid no income tax in respect of that period. Again, this figure was weighted by the firm's displacement-B measure. In the case of VAT we made a similar estimate by calculating the amount of VAT that would have been due on the business transacted by Enterprise firms which were not registered for VAT if that same business had been done by firms registered for VAT. This calculation was made for the appropriate Enterprise businesses in both the Enterprise year and the post-Enterprise period and these measures were then weighted by displacement-B. However, this procedure implicitly assumes that

all firms from which business was displaced (directly or indirectly) would themselves have been paying VAT, which is unlikely to be the case. To obtain an estimate of the proportion of such firms liable to VAT we used the proportion of Enterprise businesses surviving to the time of our survey who were paying VAT (roughly one quarter). In other words, we took surviving Enterprise businesses as being representative of the competitors to Enterprise firms themselves. Accordingly, we then weighted down our measure of VAT receipts lost to around a quarter of its original figure.

These were the only two adjustments made to deal with the issue of the loss of revenue to the Exchequer arising from the change in the distribution of available business. Other returns to the Exchequer — such as from indirect taxation, income tax from employees and so on — were assumed to be unaffected by this particular problem. The adjustments which we made, however, to income tax and VAT, are a displacement effect which must be taken into account in our costings over and above our displacement-B measure.

Our measure of the displacement of business-displacement-B — implies nothing whatsoever concerning the effect of displacement on individual competing businesses: it merely states that the aggregate loss of business sustained by non-Enterprise firms will equal the business done by Enterprise firms multiplied by displacement-B. If this loss is spread over a large number of firms its effect on any one of these may be almost imperceptible. Even if all the business done by one Enterprise firm were taken from a single competitor, the effects on the latter might be very large or, alternatively, quite minor, depending on whether the total business done by the Enterprise firm was a large or small proportion of the business done by the other firm[8].

4.4.4.2 Displacement of jobs

The crucial question of the degree to which displacement of trade leads to

8. One reason why Enterprise firms might take business from their competitors would be that they were able to sell their service or good at a lower price. If this occurs, then to the extent that it is due to the Enterprise allowance, the Exchequer is worse off, but the benefits of the subsidy (and hence some of its incidence) will have been passed on to the consumer. To the extent that consumer welfare exceeds the cost of the Enterprise allowance, the community as a whole is better off. This increase in welfare may itself result in some reallocation of expenditure with a possible increase in tax revenue. Though this effect cannot be quantified, if it is occurring it may lead to some effects which should be offset against our measure of displacement. On the other hand, this, in its turn, will be more than offset by the following consideration. If an Enterprise firm sells good or service X at a price lower than that prevailing in the market our calculations of the loss of revenue to the Exchequer as a result of displacement could underestimate the actual loss. This is because, if other firms had had the business which the Enterprise firm displaced from them, this business would have yielded more to the Exchequer by virtue of the fact that these firms' prices were higher. Our displacement-B measure, by implicitly assuming constant prices as between Enterprise firms and their competitors would thus underestimate the loss to the Exchequer arising from displacement. In general, we feel that any price effects associated with the entry of Enterprise businesses into the market are likely to be too small to make any material change to the results presented here.

job displacement comes to the fore in constructing our displacement-J measure. Ideally to construct this displacement-J measure we should like to have some measure of the elasticity of employment with respect to changes in market share (broadly defined). This would then tell us that, for each percentage change in its market share, a firm's employment would change by a given percentage. Unfortunately, such a measure is not available. One alternative is to hypothesise a value for this elasticity-so that, for example, a value of .5 would be equivalent to assuming that firms which suffer loss of business to Enterprise enterprises can, on average, absorb half of this loss by means other than job shedding or closure. The other possibility is to seek to estimate this elasticity by using proxy measures. This was the method we followed.

The total market for good or service X can be measured as some proportion of total real personal disposable income (RPDI) in the economy, and, by extension, any firm's market share can be similarly expressed. Consequently, one way of capturing a firm's change in market share is to view it as a decline in the amount of RPDI captured by that firm. This argument suggests that a measure of the elasticity of employment with respect to RPDI would serve as a proxy for the elasticity measure referred to in the previous paragraph. It is possible to derive an estimate of such an elasticity in respect of services by using equations estimated by Bradley and Fanning (1984, pp. 141, 144). This yields an overall elasticity of .42. However, this measure relates to the effects of total changes in RPDI — whereas we are concerned only with that proportion which is spent on domestically produced goods and services: accordingly we weight this measure by 1/.65 to arrive at an elasticity of demand for labour in services with respect to changes in RPDI spent on domestic products. This is equal to .642.

Given this elasticity we apply it as follows. Writing the elasticty as

$$de/dc * c/e = v$$

where de = change in employment; dc = change in RPDI; and v = elasticity, we can make the substitutions

$$dc/c \cdot = B/(N*1.44)$$

$$e = n*1.44$$

where B = displacement-B; N = the number of competitors reported by the Enterprise participant; and 1.44 is the average number of full-time workers in the competing firms. Here the figure of 1.44 is the actual average number of full-time workers in those Enterprise firms which survive to the time of the our survey: again, we take them to be typical of the firms competing with Enterprise businesses. In the case of Enterprise businesses without direct competitors, we assign to them the median value of N among the remaining businesses (= 5).

Neither of these assumptions are crucial, since both values (1.44 and N) drop out of our final equation. In contrast to our displacement-B measure, our displacement-J measure is based on an assumption about the effect of Enterprise on the overall size of the market available to competing firms: we assume that the Enterprise business takes a share of the market equal to displacement-B divided by the number of firms in the market multiplied by their number of full-time workers. This latter adjustment is made to reflect the reasonable assumption that the size of the market will be reflected in the number of full-time workers employed in it. It can be argued that the numerator of this expression ought to be multiplied by the average number of full-time workers per Enterprise firm in each period to which this measure would be applied: clearly, however, in at least the first few months of the business this will be equal to one[9].

This then yields the equation:

$$de = v * B/N*1.44 * n*1.44$$
$$= v * B$$
$$= .642* \text{ displacement-B } = \text{ displacement-J}$$

In other words, our measure of job displacement is given by the measure of business displacement multiplied by our derived elasticity, and has a mean of .6. This suggests that for every 100 full-time jobs created via Enterprise, 60 full-time jobs are displaced elsewhere in the economy[10]

4.4.3 Uncertainty of displacement measures

In presenting their estimate of displacement for the UK EAS, the MSC state that "The large degree of uncertainty surrounding this estimate needs to be recognised". While we feel that the approach to displacement presented here — which consists of examining each set of components of Exchequer returns from businesses and estimating appropriate displacement measures — is more systematic than the approaches used in previous attempts to operationalise the issue either in Ireland or by the MSC, nevertheless a similar caution should also be appended to our estimates. They depend upon certain assumptions which

9. Bradley and Fanning do not report the elasticity measure used here: rather it is derived by multiplying the total elasticity of service output with respect to (w.r.t) changes in real personal disposable income (= 1.086) by the total elasticity of service employment w.r.t services output (= .384). These elasticities are based on data for the period 1962-1979. The major difficulty with employing them in this study is that they include employment in the non-market services. Attempts by Bradley and others to estimate elasticities for marketed services only have so far proved unsuccessful in arriving at stable values. It is for this reason that the elasticity measure employed here should be regarded as a general approximation.

10. Again we might note that, in the case of a static market this implies a reduction in employment in the firms affected by displacement. If the market is expanding it implies a reduction in the growth of employment which would otherwise have occurred in such firms.

seem to us the most resonable ones to make but which cannot be empirically verified. These assumptions are, crucially, that firms which are selling on the Irish market and are in direct competition with similar Irish firms are taking all their business from these latter firms; and that Enterprise businesses which have no direct competitors but which are selling on the Irish market (and are not engaged in import substitution) are taking 65 per cent of their business from other Irish businesses. The first assumption permits only of possible downward revision, while the second could be adjusted in either direction. In the case of our measure of job displacement we feel that the use of an explicit multiplier confers certain advantages — not least in making the manner of arriving at a final figure more explicit. However, such a multiplier is not wholly satisfactory. That it is possible to estimate it only in respect of services seems to us a fairly minor issue, since the majority of Enterprise businesses are located in this sector and the remainder of those for which displacement-B is greater than zero can probably be treated as if they were service-type businesses. Of more significance is the validity of the elasticity measure itself, which is best regarded as an approximation (see the discussion in footnote 9).

4.5 *Enterprise and the Black Economy*

Our estimates of displacement, deadweight and the costs of Enterprise are all based on the assumption that none of the participants in the scheme had been operating in the black economy prior to Enterprise entry. This assumption is both inevitable, given the lack of any estimate of black economy activity, and is common to all evaluations of labour market programmes. To the extent that this assumption does not hold in reality, it would alter our estimates of the costs of the scheme, largely because of its effects on displacement. The business done by the Enterprise firm would not, in this case, be removed from competitors, except in so far as individuals who used Enterprise to legitimise their business also expanded their operations to compensate for their new found liability for income tax, VAT, and so forth. The concept of deadweight would also be altered under these circumstances, in so far as the counter factual possibilities would now centre on the probability of the individual legitimising his or her business dealings had Enterprise not existed. It would also seek to reflect the probability that such a black economy business would have been uncovered and forced into legitimate operation. Such a consideration suggests that one form of return to Enterprise is that brought about by the fact that the scheme persuades black economy business to become legitimate. However, businesses continue to operate in the black economy only because of the failure of other agencies of government to prevent welfare fraud, tax evasion, and so on. Thus to include this as a return to Enterprise is equivalent to counting as a return to Enterprise costs which are incurred as a result of the failure of other government agencies.

APPENDIX TO CHAPTER 4

In this appendix we outline some of the assumptions on which our estimates of the costs and benefits of Enterprise are based.

4.1.1 Employment effects of enterprise

It is well known that a unit increase in the number of jobs available will not lead to a corresponding fall in the level of unemployment because of the fact that new jobs attract into the labour force individuals who were not previously recorded as being unemployed or in receipt of UA or UB. Two categories of worker most likely to be affected in this way are school leavers, who, although they are seeking jobs frequently do not appear on the Live Register because they have no entitlement to unemployment compensation; and married women.

In this report we assume that every job created for an employee in an Enterprise business, net of deadweight and displacement, is taken by someone who was not previously working. Of course, in reality, this need not be so: workers may be attracted to these jobs from another. However, if we assume that these jobs represent a net increase to the total stock of jobs, then it follows that their ultimate effect will indeed be to draw into the working population those who were previously not working. The proportion of this latter group who were actually on the Live Register and receiving either UA or UB (a figure which we term the Live Register Effect) we take to be as follows:

1. for full-time jobs set up in Enterprise firms: 0.4 — that is, we assume that 40 per cent of full-time jobs are taken by people previously on the Live Register and in receipt of assistance or benefit. This figure is based on estimates made by the Department of Labour and reported in *Improving Youth Employment Opportunities: Policies for Ireland and Portugal*, OECD 1984, p.52.

2. for part-time or casual jobs in Enterprise firms: zero. That is, we assume that such jobs are all taken by people who were not previously recorded as unemployed or in receipt of unemployment compensation. This seems to us the most reasonable assumption to make.

These assumptions influence not only our estimate of how much Enterprise reduces measured unemployment but also our costings. Since one of the returns to Enterprise is the unemployment compensation forgone in respect of employees of Enterprise businesses, it can be seen that this will now apply only to 40 per cent of the full-time employees hired and to none of the part-timers.

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4.1.2 Costing enterprise

1. Administrative and overhead costs: these were estimated on a per participant basis by taking the total overhead costs for the scheme in 1985 and dividing this figure by the net participation figure for that year. This yielded a cost per participant of £33.25.

2. Payments from the European Social Fund: Enterprise is now eligible for support from the ESF, though this was not always the case, and those of our sample who joined the scheme in 1984 may not have, in fact, qualified for any subvention from this source. However, since the programme currently receives subvention we felt it appropriate to allow for this in our costings. We have taken the level of support to be 55 per cent for participants under the age of 25 and for adult participants who had been unemployed for a year or more; zero for all others.

3. Social Welfare payments forgone by the participant: we estimated these on the basis of the data available on the Enterprise application forms which are sent for verification to the local employment exchange. These include information not only on the amount and composition of unemployment compensation but also on the duration of unemployment. Using these data a computer program was written which estimated the total assistance or benefit which would have been paid to the participant during his/her period on Enterprise and over the post-Enterprise period during which the business continued to operate, taking account both of changes in the individual's entitlement (e.g., movement from one level of PRB to another; from UB to UA; from short-term to long-term UA; and so on) and changes in the overall rates of payment (i.e. the increases in rates of payment taking effect in July of 1985 and 1986). In the case of individuals in receipt of UB we assumed that they would maintain their entitlement for the full period (312 or 390 days as appropriate given their marital status and sex); and, in the case of individuals who would have moved onto UA during the course of the overall period we assumed them to have no offsetting means and therefore to be eligible for the full rates of payments, conditional on their number of dependants. These two assumptions will probably lead to something of an over-estimate of the level of payments forgone.

4. Income tax and PRSI paid by the individual participant plus VAT paid by the business: we assumed that the only tax accruing from the businesses set up under Enterprise would be personal income tax from the participant and VAT on the business. We further assumed that no tax would be paid during the first year of operation. To assess how much income tax would be paid subsequent to this, two broad approaches were open to us. Since we knew,

from the questionnaire data, what the respondent's weekly income from the business was, we could either assume a particular level of tax free allowances on the individual's income and assess his/her tax liability accordingly; or, we could try to obtain some average measure of the real tax rate (i.e. the overall percentage of income paid in tax) to apply to the individual's income. Assumptions about levels of tax free allowances are fraught with difficulty: for example, if the respondent is married and his wife is working, we do not know whether to assign him a personal allowance of zero, a single person's allowance, or a joint/married allowance. To be certain which was appropriate we would have to know his/her spouse's tax free allowances. Likewise we can have no idea of what other allowances he or she may or may not have. Moreover, the date at which the business becomes liable for tax will also influence the amount paid. We decided, therefore, to use the second approach and to seek a simple figure which would represent the true tax rate for incomes derived from small businesses. The only suitable measure comes from the Household Budget Survey (HBS) of 1980. This is somewhat dated, and therefore will be a conservative measure of tax yield. Data from the HBS have been analysed by Dr. David Rottman at the ESRI, and he has grouped households according the occupation of the household head, into 14 categories, one of which is "Small Proprietors". For them, their true tax rate in 1980 (i.e., direct taxes including PRSI paid as a proportion of direct income) was .097 — just under 10 per cent. We therefore applied this measure to the post-Enterprise year income of participants to arrive at their tax and PRSI liability. The same approach was used to estimate the tax + PRSI yield from employees of the business as discussed below.

In relation to the VAT yield, we assumed that businesses would have paid no VAT during their first year of operation. Our questionnaire asked respondents whether they were registered for VAT and for their average net monthly VAT position (i.e. payments minus refunds). We applied this latter figure to the post-Enterprise period during which the business was in operation to arrive at our estimate of VAT yield.

5. Increased expenditure taxation by participants: to the extent that there is a difference in the level of disposable income that the participant would have had under social welfare and under Enterprise (where disposable income is defined as income from the business net of tax plus the Enterprise allowance), then the total paid by the individual in expenditure taxes can be expected to change, either to increase or fall. In order to estimate this change we need to have a figure for the average proportion of disposable income which is returned to the Exchequer in the form of indirect taxation. For the purposes of costing we took this figure from the 1980 HBS. For small proprietors,

their rate of indirect tax is 0.15 or 15 per cent of their direct income. Note that since we apply this figure to the change in income between social welfare and income derived from the business, we make the implicit assumption that their true rate of indirect tax when they were receiving social welfare was also 15 per cent.

6. Tax and PRSI in respect of employees: we assume that only full-time employees yield any income tax or employee and employer PRSI. Again the HBS yields the true income tax + employee PRSI rate. This was arrived at by aggregating the HBS data over all the employee classes to arrive at a true tax rate of 0.184. However, the HBS data takes no account of employer PRSI contributions: thus we estimated these separately by multiplying the gross wage of each employee by 0.1233.

7. Social welfare payments forgone by employees: we assume that this is applicable only in respect of the number of full-time employees weighted by the Live Register Effect (as discussed above). The difficulty here is determining what rate of payment to apply to this figure. We have taken the figure for the mean weekly rate of payment to a sample of entrants to the Employment Incentive Scheme in early 1986, confining out calculations to those who had been in receipt of social welfare payments immediately before being hired. This yields a figure of £52.22 per week. This sample is appropriate in so far as it consists of individuals who were hired as employees and also relates to a time (1986) when our Enterprise sample firms were, on average, one year old and might therefore be expected to be hiring employees. However, it may lead to an understating of the social welfare forgone since we do not allow for any increase in this figure over the period of their employment — i.e. we do not take into account any increases in rates during the time they were employed.

We also do not take into account the change in indirect tax yielded by employees by virtue of their earned income exceeding this notional social welfare income.

By making these estimates conservative in these various ways, and by excluding other possible Exchequer returns (as noted in Chapter 4) we hope to offset, to some extent, the possible overestimate of returns via social welfare payments forgone by Enterprise participants, as discussed above.

4.1.3 Payments to participants from other schemes

In the text of Chapter 5 we present the average figure for payments received under schemes other than Enterprise. These were computed as follows:

(i) EIS: for each employee hired under EIS we assumed that the full subsidy was payable. However, since we have no information as to which level of subsidy was payable in each case (£720 or £1,440) we set this to equal the mean subsidy paid in respect of participants in 1985 which was £806.04.

(ii) WEP: for each WEP placement we assumed that the value of this to the employer was equal to the weekly allowance multiplied by the full WEP period. We used the 1985 figure of £32.50 for the allowance in our calculations.

(iii) PRSI exemption scheme: we assigned to each occurence of participation in this scheme the total of the employer's PRSI payments forgone as the value of the scheme to the Enterprise participant;

(iv) other levels of State support in the form of grants and subsidies (from, e.g. the Community Enterprise Programme and from a range of 12 other agencies) were recorded directly on the questionnaire.

Note that we made no attempt to measure the cost to the State or the benefit to the Enterprise participant of the extending of loans to them under schemes such as the Youth Self-Employment Programme or from various State agencies.

Chapter 5

COSTS AND BENEFITS OF ENTERPRISE

5.1 *Introduction*

In the previous chapter we dealt with a number of the conceptual and methodological issues that arise in seeking to make costings of Enterprise. In this chapter we now present our estimates of the costs and benefits of the scheme. In Section 5.2 we present estimates of the number of jobs created under Enterprise (taking account of deadweight and displacement) and of the scheme's effect on measured unemployment. In Section 5.3 we present estimates of the net Exchequer cost of the scheme in terms of per participant costs and also of the costs of reducing unemployment using Enterprise. We also look at the relationship between average costs and the length of time that Enterprise businesses survive.

The central problems entailed in making a costing of a scheme like Enterprise are that, first, estimates are likely to be highly sensitive to the measured levels of deadweight and displacement; and, secondly, deadweight and displacement are notoriously difficult to measure. Accordingly, we present several sets of estimates of costs in Section 5.3. We present estimates of gross, net and overall costs (as defined in Chapter 4) at two points in time — these are at the end of the Enterprise 52 weeks and at the time of the survey. We also present estimates of overall costs using the estimates of deadweight and displacement employed by Coopers and Lybrand in their study of Enterprise (EAS as it was then termed).

5.2 *Revised Figures for Job Creation under Enterprise*

In Chapter 3 we presented some figures relating to job creation under the scheme. Although we weighted these to take account of the fact that some Enterprise participants were involved in joint enterprises, these figures took no account of deadweight or displacement nor of what we termed in Chapter 4 the Live Register Effect of Enterprise (i.e. the fact that not all jobs which become vacant will be filled by someone coming from the Live Register). Accordingly we present these figures here.

Table 5.1 shows the number of person weeks of employment created per Enterprise entrant. This is broken down into self-employment (in the columns labelled "Self") and full-time employment for employees and is also measured both at the end of the Enterprise year and at the time of our survey.

The first row reproduces the data reported earlier in the text of Chapter 3.

Taking account of partnerships and co-operatives and so on (which only affects the measure for full-time employees) we see that by the end of the Enterprise year the scheme will have created, on average, 57 weeks full-time employment per participant. By the time of the survey this will have increased to 100 weeks full-time employment, not making any allowance for deadweight and displacement.

The second row of the table takes account of deadweight and displacement. Here the appropriate displacement measure — displacement-J — is used to weight the figures and arrive at the net increase in full-time jobs brought about by the scheme, measured in terms of person-weeks of work. These figures show that after one year the scheme will have created, on average, 12 weeks of full-time employment per participant. The substantial difference between this figure and the figure arrived at on the row above reveal the importance of deadweight and displacement in measuring the effects of a scheme. By the time of the survey, approximately two years after entering Enterprise, 17 weeks of full-time employment will have been created per participant.

Finally, the third row of the table shows the effect of the scheme on measured unemployment. Here we see that the only important effect of the scheme on measured unemployment arises through the participants themselves: the full-time jobs which their businesses create are too few in number, and the levels of deadweight and displacement too high, to contribute much in the way of reducing unemployment. After two years, one person will have been removed from the Live Register for 16 weeks per Enterprise participant.

Table 5.1: *Person weeks of Employment Created per Entrant to Enterprise, by the End of the Enterprise Year and at the Time of the Survey.*

	At end of Enterprise year Full-time		At Survey Full-time	
	Self	*Employees*	*Self*	*Employees*
(1) Allowing for partnerships, co-operatives, etc.	48.60	8.74	83.27	16.59
(2) Allowing for (1) and for deadweight and displacement	10.99	1.22	15.77	1.65
(3) Allowing for (2) and also for the Live Register Effect	10.99	0.49	15.77	0.66

Interpreting these figures slightly differently, we can say that, by the end of the Enterprise year, one year's additional full-time work (net of deadweight and displacement effects) will have been generated for every 4.25 participants. After two years the same net increase in work will have been generated per 2.98 participants. In terms of reducing measured unemployment, one person will be removed from the Live Register for one year per 4.53 participants, in the

first year of Enterprise. By the end of the first post-Enterprise year, one person will have been removed from the Live Register per 3.2 participants.

5.3 *Costing the Enterprise Scheme*

5.3.1 Costs per participant

In Chapter 4 and in the Appendix to Chapter 4 we discussed at some length how we went about costing Enterprise and deriving measures of the components entailed in such a costing. Accordingly, Table 5.2 now presents the average values per participant of these various components, measured at the end of the Enterprise year and at the time of the survey. Thus, the average amount paid per participant in Enterprise allowance and PRB capitalisation was £2,240.70; the average ESF subvention was £446.11; and so on. Some of these items do

Table 5.2: *Costings for Enterprise: Average amount per Participant at the End of Enterprise year and at Survey*

	£	
	End of Enterprise Year	*At Survey*
(1) Enterprise allowance + PRB capitalisation	2240.70	2240.70
(2) ESF subvention	446.11	446.11
(3) Administrative costs	33.25	33.25
(4) Social welfare forgone	3193.21	5397.00
(5) Tax and PRSI yield (self)	—	342.58
(6) VAT yield*	—	885.59
(7) Increased expenditure tax yield	151.45	361.89
(8) Employee tax and PRSI* (employer + employee contribution)	258.17	537.52
(9) Social Welfare forgone by employees*	182.62	346.53

*Note: These figures are weighted to allow for the fact that some Enterprise participants are not the sole owners of the business.

not change between the end of the Enterprise year and the survey, for the obvious reason that they are outflows or inflows which occur only during the actual period of Enterprise participation. On the other hand, measures such as social welfare forgone continue to increase, and other measures — such as the tax and VAT yields — have been set to zero during the Enterprise year for reasons discussed in the Appendix to Chapter 4. For convenience we have assumed that ESF moneys are received simultaneously with payment of the allowance, whereas in fact there may be a considerable delay in receiving such payment. We have done this because the ESF subvention is a certain return that does not depend upon the survival of the business after the Enterprise year: therefore, should we choose

to cost the scheme on the basis of the position at the end of the Enterprise year, the ESF moneys should be included. Counting the ESF return in the first year's account is also convenient in so far as all post-Enterprise returns are then confined to firms which survived beyond the Enterprise period. The question of whether we count ESF returns in the Enterprise or post-Enterprise period is immaterial provided that we are not discounting the returns to arrive at a present value. When we do this, later in this chapter, although we continue to include ESF returns in the end of Enterprise year calculations, we discount them to reflect the fact that they are not in fact received until a point during the post-Enterprise year.

Items marked with an asterisk in Table 5.2 have been weighted to allow for the participant's share of the business. For example, if a business in which the participant was an equal partner with one other person yielded £3000 in VAT, we would have attributed half of this to the Enterprise participant and thus to the scheme.

What is immediately apparent is that the substantial elements in Table 5.2 are the Enterprise allowance and capitalisation; the social welfare forgone by the participant; and the VAT and tax yield. Since the outflow in Enterprise allowance payments occurs only during year one, while the other two elements — which constitute inflows to the Exchequer — continue to increase with time, the length of time which businesses remain in operation may appear to be crucial to the question of the total cost of the scheme. However, as well as duration, we must also take account of the levels of deadweight and displacement. When we do this we find that the duration of jobs and businesses created under the ·scheme has rather less impact on the net cost of the scheme than we might have anticipated.

This can be seen if we examine Table 5.3 which shows the gross, net and overall costs (as defined earlier) of the scheme on a per participant basis, at the end of the Enterprise year and also one year later. All the gross costs occur in

Table 5.3: *Average Gross, Net and Overall Costs per Participant at the end of Enterprise year and at time of Survey*

| | £ | | | |
	Gross	Net	Overall	
At end of Enterprise year	2273.95	− 1969.04	1086.19	(1061.44)*
At Survey	2273.95	− 5892.03	776.74	

*Figures in parentheses are overall costs using Coopers and Lybrand estimates of deadweight and displacement.

year one and therefore remain unchanged during year two. The net costs (which are made up of outflows from the Exchequer minus inflows from the business unadjusted for deadweight and displacement and which are negative, reflecting

the fact that the balance of flows is in favour of the Exchequer) change substantially by virtue of the flow of receipts to the Exchequer — in the form of social welfare forgone, tax, VAT and so forth — from those businesses which survive. However, while the overall cost (i.e., taking account of deadweight and displacement) is just under £1,100 at the end of year one, this figure changes relatively little by the end of year two, falling by £300. The reasons for this are, first, that the proportion of businesses within the original cohort which are generating any returns is less in year two than in year one because of the failure of businesses. Secondly, however, those businesses which survive longest are those where deadweight and displacement are highest, and thus the net effect of the returns from these businesses is quite small. In other words, as time passes not only does the cohort of surviving Enterprise businesses diminish (as less viable enterprises fail) but this attrition also increases the average levels of deadweight and displacement among survivors. Thus, somewhat surprisingly perhaps, we find that, because duration, deadweight and displacement are so highly related, the effect of duration on the overall cost of the scheme is relatively small.

Strictly speaking we should take the net present value of the scheme in costing it — i.e., we should discount flows of payments and receipts which take place over time in order to make them comparable. Taking an annual discount rate of 11 per cent and assuming continuous compounding (to reflect the fact that these flows occur on a continuous basis rather than at particular points during a given year) we find that the overall cost per participant falls by about £250 between the end of year one (£1,019.03) and the end of year two (£769.03)[11].

These figures also take no account of assistance given to Enterprise businesses under other State schemes and by other agencies, such as the Employment Incentive Scheme, the PRSI exemption scheme; IDA grants; YEA (now administered by FAS) programmes; and so on. The way in which we went about measuring the level of assistance received from these sources was discussed in the Appendix to Chapter 4. Overall, the level of support from other schemes per Enterprise participant (and allowing for part-ownership of the business) was £328.48 by the time of the survey.

11. Our deadweight measure implicitly assumes that, had a business been established even without Enterprise help, it would have generated exactly the same returns as the observed Enterprise business and would have survived for the same period. To the extent that neither of these assumptions hold, our measure of deadweight seems likely to have overstated the effect of deadweight on the per participant costs. However, we were able to ask those members of our sample who were still in business whether they felt that, without Enterprise, they would still have been in business. Of those who stated that they felt that they would have set up in business without Enterprise, 9 per cent also felt that they probably would not have been trading at the time of our survey without Enterprise's help. In order to incorporate this into our costings we would also need some estimate of when the business would have failed had it not been for Enterprise, estimates which we felt it was not feasible to seek to obtain. As an alternative we, somewhat crudely, reduced the deadweight measure among all surviving businesses by 9 per cent (preserving the lower bound of zero). This had little effect on the overall costings, reducing the discounted average per participant costs by around £3.

The figure in parentheses in Table 5.3 shows the estimate of overall cost at the end of the Enterprise year which would have been arrived at by replacing our figures for deadweight and displacement by those used by Coopers and Lybrand. This figure and our own are very close, and both are very close to the figure in Coopers and Lybrand's report of £1,131 per participant.

5.3.2 Costs of job creation

The question of duration becomes more important (at least in the short run) when we measure the costs of job creation. Our costings are given in Table 5.4.

Table 5.4: *Costs of Job Creation under Enterprise (figures in parentheses are net present value discounted at 11 per cent continuously compounded)*

	£	
	Cost at end of Enterprise Year	Cost at time of Survey
(1) Cost of creating one year's full-time employment/self-employment	4,616.31 (4,330)	2,314.69 (2,290)
(2) Cost of reducing the level of recorded unemployment by one person for one year	4,920.44 (4,620)	2,454.50 (2,430)

Here we see that, by the end of the Enterprise year, each new person year of employment (or self-employment) created, net of deadweight and displacement, costs around £4,500 (the figure in parentheses is the cost discounting to the start date on the scheme and rounded to the nearest £10.00). By the end of the following year (at the time of the survey) this has fallen substantially to just less than £2,500. Likewise for the effect on the Live Register. At the end of the Enterprise year the cost of taking one person off the Register for one year is around £5,000; whereas, a year later, the cost works out at around £2,500.

Why do the costs fall so much here when earlier we saw that duration had little effect on the costs per participant? It is because, despite high deadweight and displacement among surviving businesses, they are generating revenue to the Exchequer and also generating person-years of employment by virtue of surviving and employing people.

The question then arises of whether or not, given that Enterprise businesses continue to survive after two years, the net cost of job creation via Enterprise would continue to fall. We discuss this issue in Section 5.3.4.

5.3.3 A Further note on costs

The costings presented here take account of what we might term the primary effects of the scheme. However, schemes such as Enterprise are sometimes assumed to entail secondary effects. These include, for example, wider effects

on the operation of labour markets and financial markets. For example, if the goverment ultimately has to borrow money to finance such a scheme, this can be assumed to increase the cost of money — in other words, interest rates. Likewise, it may be argued that such borrowing reduces liquidity which would, under other circumstances, be available for investment elsewhere in the economy. Of course, given the gross cost of Enterprise these effects, of themselves, are likely to be quite insignificant in the short term, particularly when set alongside the direct or primary effects of the scheme. While we have not sought to take such secondary effects into account, we feel that this is unlikely to have a major bearing on our short-term costings.

5.3.4 Duration of businesses and its effect on costings

We have seen that, according to our calculations, the per participant costs of Enterprise change little despite the duration of businesses after the Enterprise year, and we argued that this is because surviving businesses have high levels of deadweight and displacement. The question which naturally arises, however, is whether, and if so by how much, the average costs of the scheme will decline as Enterprise businesses survive for a third, fourth and subsequent years. Great uncertainty is attached to any attempts to provide an answer. For example, the MSC provides no costings of their EAS programme later than the end of the EAS year. They argue that

> With EAS there is no additional public expenditure cost after the first year. However, a majority of businesses continue to trade beyond the first year so that additional employment persists. As a result, some of the reduction in unemployment and some of the Exchequer saving will persist into the second year. *It is not possible, however, to quantify the effects of EAS after the first year. This is because of the great difficulty in measuring deadweight and particularly displacement, which are very likely to be higher than in the first year after start-up. The scheme and its financing will have effects in the output, labour and financial markets and over time reduce the direct effects (Employment Gazette* October 1986, p.408; italics added).

The foregoing would suggest, among other things, that those elements which we ignored in our costings as being unlikely to have significant effects on the short-run costs of Enterprise (such as the secondary effects discussed in 5.3.3 above and the other forms of deadweight effect discussed in 4.3.1) may have a more important impact in the slightly longer run. However, our ignorance about the likely magnitude of these effects, as well as of the likely levels of return to the Exchequer from surviving businesses, makes any estimate of the cost position after the time of our survey extremely tentative. It is for this reason,

of course, that we present estimates of the costs of Enterprise at the end of the Enterprise year and one year later, rather than an estimate of the present value of the costs and the stream of returns to the Exchequer that will take place over the entire life of the business. Although the latter is preferable, our lack of knowledge means it is unattainable.

We can, nevertheless, present some estimates which give some indication of the possible magnitude of future returns to the Exchequer. On average, in order for the scheme to break even, each business during its lifetime would have to generate, net of deadweight and displacement, returns with a present value of just under £1,700 (assuming a discount rate of 11 per cent). The figure of £1,700 excludes the ESF subvention, which has already been taken into account. However, since a proportion of businesses fail long before generating anything like this amount, the diminishing cohort of survivors must each generate rather more than this. Our costings (with our assumptions about deadweight and displacement levels) show that after the Enterprise year, about 40 per cent of this figure has been generated; after two years 54 per cent. The reasons for the slowing down in the "rate of payback" in the second year have already been discussed.

If we assume (i) that in the third year Exchequer returns are generated only by those surviving firms whose deadweight is nil; (ii) that none of these firms fails during the year; (iii) that there are no additional offsetting effects (such as secondary effects or deadweight from other sources or an increase in displacement); and (iv) that these businesses generate the same level of real returns to the Exchequer in year three as in year two, then we find that at the end of the third year, the average overall Exchequer cost has fallen by £178 to almost exactly £590 per participant so that the cumulative average Exchequer returns have increased to 65 per cent of the break even requirement. At this rate, and preserving assumptions (i) to (iv) unchanged, Enterprise would break even almost exactly five years after entry to the scheme.

Relaxing assumption (iv) could prolong or shorten the break even period, depending on whether we assumed growing or diminishing real returns to the Exchequer, while relaxing assumptions (ii) and/or (iii) would have the effect of lengthening the break even period. Given that the assumptions as they are used above, are likely to be over-optimistic (assumption (ii), for example, is clearly incorrect over such a long period), five years can be seen as a lower bound on the break even period. Once we relax assumption (iii), in particular, the possibility arises that the scheme will never break even — as the arguments made by the

MSC and quoted above would seem to imply[12]. Because of the uncertainties surrounding the issue, we take the costs of Enterprise to be those calculated at the end of the first year after the Enterprise period, while acknowledging the possibility — though far from the certainty — that these costs could diminish (in any event relatively slowly) given the continued survival of businesses in subsequent years.

12. One indication of how displacement, for example, might alter with time, is found by comparing the answers of our respondents to the question of whether or not they had local competitors at the time they set up their business with answers to the question of whether or not they currently have local competitors. Of those businesses still in full-time operation at the time of the survey, only 7 per cent stated that they had no local competitors when they established their business. However, of this 7 per cent, two-thirds reported that they had local competitors at the time of our survey, suggesting a possible increase in displacement effects.

Chapter 6

OBSTACLES TO BUSINESS FORMATION AND REASONS FOR BUSINESS FAILURE

6.1 *Introduction*

In this chapter we describe the kinds of businesses set up by participants in Enterprise; we discuss some of the difficulties that they encounter in starting a business; and, for those businesses which are no longer operating, we look at the reasons for their failure.

6.2 *Business Established Under Enterprise*

Table 6.1 shows the percentage of businesses of various types established under Enterprise. Services, as defined here, accounted for almost three-quarters of businesses, with manufacturing accounting for a further 20 per cent. The most

Table 6.1: *Types of Business Established under Enterprise*

	% of participants
(1) Manufacturing:	
Clothing and textiles	4.8
Wood, paper and printing	7.0
Miscellaneous other	9.8
All manufacturing:	21.6
(2) Services:	
Building and construction	15.9
Wholesalers and agents	3.6
Retail outlets	16.9
Cafes and pubs	2.0
Repair of cars and bicycles	7.7
Other repairs	4.1
Taxis and hauliers	4.5
Business, insurance, financial services	6.5
Personal and domestic services	6.7
Other services	5.3
All services:	73.2
(3) Agriculture, Fishing, Forestry	5.2

popular business options were building and construction; and retail shops. The former were generally small scale operations involving, for example, self-employed painters, plumbers, small builders, and similar. Among retail shops,

the most popular were food stores, followed by petrol stations and also shops which sell household goods and furniture. The category "Repairing cars and bicycles" largely comprises motor mechanics who did not operate from a retailing garage, while "Other repairs" includes a large number of domestic appliance repairers. Personal and domestic services includes a large proportion of hairdressers.

Outside the services area, the most popular forms of manufacturing were the making of clothes; wood products (such as furniture and doors); and wrought iron work — gates, screens, fences etc.

Broadly speaking, these businesses were small and were aiming for a local market: very few were engaged in exporting. Likewise, most of them were undertaking activities which could not be described as being in short supply (although this would obviously depend on local circumstances). However, it seems safe to conclude that, to the extent that these businesses were successful, this must have been at the expense of similar businesses.

In terms of size, the businesses set up displayed considerable variation. While the bulk of them would be described as small, there were a small number of larger enterprises. For example, while of those businesses still in operation at the time of our survey, half reported a current gross annual turnover of less than £15,000, there were, nevertheless, 10 per cent which had an annual gross turnover in excess of £100,000. There were comparable levels of variation in initial capital outlay, as we shall see below.

6.3 *Obstacles to Setting Up in Business*

In this section we discuss some of the obstacles that small businesses are likely to face during their start-up period. We divide these into financial and other obstacles.

6.3.1 Financial obstacles

While one would anticipate that lack of capital would constitute a major constraint in the setting up of a business, the results of our survey tend to suggest that it may be less significant than one would have supposed. This appears to arise, first, because many businesses only require a fairly modest initial capital outlay; and, secondly, because those businesses that require capital appear able to raise it via commercial and other channels. Of course it may be that some individuals who wished to set up their own business may have been prevented from joining Enterprise because they felt, or knew, they would be unable to raise the required start-up capital. Furthermore, it could also be the case that participants in Enterprise decided on a particular business idea which involved little capital outlay because they knew that they would be unable to raise the amount required by a more ambitious business idea. On the other hand, as

we will see later in this chapter, lack of capital was cited as a reason for business failure by about 14 per cent of those participants in the scheme who were no longer in business.

Just under 10 per cent of participants in our sample stated that their business required no initial capital outlay. Many participants did not have to acquire trading premises, their business either not requiring premises (as in, say, the case of a taxi driver) or being operated from home. Furthermore, in many cases participants already possessed the tools or equipment that may have been required (as in the case of the majority of those in building and construction). The amounts of capital outlay are shown in Table 6.2, where we see that the commonest level of initial investment was a sum of between £2,000 and £5,000, though a small number invested considerably more.

Table 6.2: *Capital Outlay at Start-Up*

	% of Participants	Cumulative %
Nil	9.4	—
Less than £500	10.2	19.6
£500 — £999	13.3	32.9
£1,000 — £1,999	14.9	47.8
£2,000 — £4,999	27.1	74.9
£5,000 — £9,999	16.7	91.6
£10,000 or more	8.3	99.9

There were two main sources of funds for this investment; these were personal savings (which were used by 60 per cent of those who incurred an initial capital cost); and borrowing (used by 57 per cent: note that these percentages will not sum to 100 because some participants used more than one source of funds). Capitalisation, of either the allowance or PRB, was used relatively infrequently — in fact by 21 per cent of those who incurred capital outlay costs. Other sources of funds, such as redundancy payments or gifts, were infrequently used.

The average amount among those who capitalised any allowance and/or PRB, was £785. The average amount of savings (including any redundancy money) invested in the business by those who had any capital outlay was £1,875; and the average sum borrowed was £3,112. However, these latter two figures are a little misleading, being considerably inflated by the influence of a very small number of businesses which required extremely (by Enterprise business standards) high levels of capital investment. For example, 8 businesses borrowed more than £25,000, of which 4 borrowed £50,000 or more and 1 exceeded £100,000. Tables 6.3 and 6.4 perhaps give a better picture of the sums invested from savings and borrowings. Here we see that the median level of savings invested lies between £500 and £1,000 and the median amount borrowed falls into the same range.

Turning to the question of the sources of borrowed money, we found that

Table 6.3: *Amount of Savings (including Redundancy Moneys) Invested in Enterprise Businesses (among those who made some start-up investment)*

	% of participants who had some capital outlay	Cumulative %
Nil	28.6	—
Less than £500	14.1	42.7
£500 — £999	13.5	56.2
£1,000 — £1,999	14.1	70.3
£2,000 — £4,999	20.4	90.7
£5,000 — £9,999	6.5	97.2
£10,000 or more	2.7	99.9

Table 6.4: *Amount Borrowed to Invest in Business (among those who made some start-up investment)*

	% of participants who had some capital outlay	Cumulative %
Nil	43.0	—
less than £500	5.1	48.1
£500 — £999	4.4	52.5
£1,000 — £1,999	10.0	62.5
£2,000 — £4,999	20.1	82.6
£5,000 — £9,999	10.5	93.1
£10,000 or more	7.0	100.1

bank loans and overdrafts were by far the most commonly used (and, again, some individuals used more than one source) as Table 6.5, which is confined to those who had some borrowings, shows. A small percentage obtained bank borrowing via the Youth Self-Employment Programme. Credit Unions and loans from family, relations and friends (with and without interest) were of equal, but lesser, importance.

Table 6.5: *Sources of Funds for those who Borrowed Money to Invest in Business*

	Percentage of those who borrowed money
Bank loan	45.3
Bank loan using Youth-Self Employment Programme	7.6
Bank overdraft	32.9
Credit Unions and other institutions	17.3
Family/Relative/Friends	17.3

The sources of collateral used by those who obtained a loan from a commercial bank are shown in Table 6.6. While just over a quarter stated that they did not know what collateral was involved or that no collateral was required or that a personal guarantee sufficed, the most common source of collateral was a

Table 6.6: *Sources of Collateral used by those who Obtained Bank Loans*

	Percentage of those who received bank loans
Other person stood as guarantor	20.4
House Deeds	17.4
Insurance Policy	12.1
Business Equipment/Premises	10.3
Other	12.1
None/don't know/personal guarantee	27.7

guarantee by another person. In most cases this was the participant's parent. As Table 6.6 shows, the next most common sources were house deeds, insurance policies, and some item(s) of business equipment such as machinery, tools or premises.

6.3.2 Other difficulties in establishing a business

In our questionnaire we asked participants about other areas in which they might have experienced difficulties in getting their business off the ground. Broadly speaking there appeared to be two main areas of difficulty: these were problems associated with finding suitable premises (among those who did not operate from home); and problems of acquiring insurance cover (public liability and insurance for premises and employees where applicable) at a reasonable cost. Among those who had premises, a third stated that they had experienced considerable difficulty in finding premises at a reasonable cost, while a further sixth said they had experienced some difficulty. While about 1 in 3 participants had no form of insurance cover, of those who had, 40 per cent stated that they had experienced a considerable degree of difficulty in getting it at a reasonable cost — and, indeed, in interviews with participants it was clear that many of them felt they were paying too much for insurance cover.

A third, less significant area of difficulty, was the problem of finding customers. Twenty per cent of participants experienced considerable difficulty here and a further 40 per cent reported some level of problems.

Beyond these three areas other sources of what we expected to be potential difficulties turned out to be of less significance. Dealing with VAT and tax presented considerable difficulties for only about 10 per cent of those for whom these things were relevant (i.e. those who were registered for VAT and/or had had dealings with the income tax authorities). Dealings with the National Manpower Service presented considerable difficulties for only 4 per cent.

6.4 *Reasons for the Failure of Businesses*

Forty per cent of business in our sample were not operating at the time of

the survey. In these cases we asked a number of questions relating to the reasons for the failure of the business. Table 6.7 reports what respondents claimed was the major reason why their business ceased to operate. It is clear from Table 6.7 that the single most important reason was economic. This category covers a number of eventualities — lack of demand; too much competition; too high a level of costs; inadequate level of income from the business; end of the Enterprise payments. Beyond this, however, almost 1 in 6 failed businesses resulted from the participant either taking a paid job, retiring, or falling ill (of which the first was by far the most important). In the case of those who took jobs, it may have been that they did this because the income from the business proved inadequate. Miscellaneous other problems — such as difficulties in getting paid, problems with suppliers, difficulties concerning premises, insurance, tax or VAT-accounted for a further sixth of failed businesses. Lack of capital was responsible for the demise of about 1 in 7 of failed businesses.

Table 6.7: *Main Reason why Business Ceased to Operate*

	Percentage of respondents whose Enterprise business not operating
Took paid job/Retired/ Gave up because of ill health	15.3
Economic Reason	47.3
Lack of Capital	13.7
Problems with Partner(s)	7.6
Miscellaneous Other	16.0

Although Table 6.7 seems to show that problems with partners was a very minor cause of business failure, the majority of enterprises were set up by one person who therefore would have had no partner(s). If, however, we confine attention to those partnerships, co-operatives and other forms of joint venture which failed, we find that 46 per cent attributed their failure to problems with their partner(s). Among joint ventures which fail, this is a more important reason for failure than the economic ones listed above. While it may be that an absent partner provides a convenient rationalisation for respondents' business failure, it nevertheless appeared to us that difficulties between partners were an important and genuine cause of business failure. Typical areas of disagreement included disputes over the amounts of money, time and effort that each was putting into the business. In several cases businesses had ceased to operate when one partner broke away from the other following a disagreement or in order to take up a business contract which he did not wish to share.

Table 6.8 shows the economic status, at the time of the survey, of those whose businesses were no longer operating. A small percentage had started another business, while just over a quarter were working as an employee. The majority

Table 6.8: *Economic Status at the Time of the Survey of those whose Enterprise Business had Ceased to Operate*

	Percent of those no longer in business
Self-employed	8.6
Employee	27.3
Unemployed receiving UA or UB	46.8
Full-time Education	0.0
Disabled/Unable to Work	4.3
Other	12.9

of those whose businesses had failed, however, were unemployed and in receipt of UA or UB.

6.5 *Conclusions*

The heavy concentration of Enterprise participants in the non-traded services sector limits the scope of the scheme in bringing about net increases in overall employment. It seems likely that the majority of such businesses are competing against similar firms in what is already an overcrowded market. One corollary of this is that the scope for the growth of such businesses is curtailed by this high degree of competition. Obvious examples of this situation are likely to be those businesses in the building and construction area, which make up just under 1 in 6 of all Enterprise businesses.

On the other hand, a small proportion of Enterprise businesses do appear to have the potential for considerable growth. Among those businesses still in operation at the time of our survey, 10 per cent had an annual gross turnover of £100,000 or more. These firms were concentrated into two main sectors of activity: 30 per cent were engaged in some form of manufacturing; 50 per cent were in retailing (including pubs and cafes).

The degree of use made of borrowing for start-up capital seems to indicate that entrants to Enterprise have reasonable access to bank finance. This may explain why relatively few entrants make use of the capitalisation facilities of Enterprise.

The overall level of business failure in the scheme is not unduly high. About 55 per cent of businesses are still in full-time operation after a total of two years. However, Figures 3.1 and 3.2 show that towards the end of the second year the rate at which businesses fail reduces markedly, so that we can anticipate a very low subsequent rate of failure among businesses which survive for two years.

The reasons for business failure are, as we have seen, chiefly economic. However, there is a suggestion that partnerships are particularly vulnerable to failure for non-economic reasons. This is an issue we take up again in Chapter 7.

Chapter 7

PREDICTING BUSINESS SUCCESS

7.1 *Introduction*

In this chapter we now turn to the question of identifying successful Enterprise businesses. We look at three measures of success. The first, and most important of these, is the length of time the business has been in operation; in other words, the duration of the business. The second and third measures are the current gross annual turnover of the business; and the current number of full-time employees in the business. These latter two measures are only available for businesses which were still operating at the time of our survey.[13]

Broadly speaking, we can identify three sets of factors which will influence the success of a business. These are

(1) the type of business;

(2) the organisation of the business, the way it is run, and so on;

(3) characteristics of the individual who sets up the business — for example, whether he or she has had previous experience in this area; his or her educational level, and suchlike.

Of these three sets, we believe that (3) is of chief importance from the point of view of determining policies for targetting the scheme at those most likely to make a success of their business. (1) is perhaps of least relevance from this point of view, since the types of business which were successful in our sample (which comprises entrants to the scheme during 1984, '85 and '86) may well not be of the type which would be successful if started now. This is because the demand for certain goods and services may change over time and, more importantly, so may the supply. It may have been that, in 1984, the market was under-supplied with a particular service or good which Enterprise businesses were able to provide and thus prosper. However, their success may now mean that the market for that product is a highly competitive one in which new Enterprise businesses are unlikely to thrive.

Factors included under (2) are likely to be very important in determining business success, if only because an efficiently run business will do better than

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13. All the analyses in this chapter were carried out on businesses which had ceased to operate or which were operating on a full-time basis. We exclude part-time businesses from consideration.

an inefficient one, all other things being equal. However, from the point of view of seeking measures which can be used to indicate ex ante whether a particular applicant to Enterprise is likely to be successful, these factors are of only partial use. This is because the business plan of applicants joining Enterprise is unlikely to convey much information on how they will actually run their business (though it will contain some). The methods of organisation and running of the business are likely to be things which develop with the business itself.

In what follows, then, we shall concentrate on identifying variables or factors which are associated with business success and which might be used to indicate applicants' likelihood of success. We focus chiefly on characteristics of individuals, secondarily on organisational features of the business; and only in passing on details of the type of business.

7.2 *Survivorship of Businesses*

In Chapter 3 we presented some basic data and figures relating to the survivorship of Enterprise businesses. There we saw that at the time of the survey, or, roughly two years after setting up in business, 55 per cent of participants were still operating on a full-time basis, and that, although the rate of business failures was high at the end of the Enterprise year, by the end of the post-Enterprise year the rate of business failure had fallen dramatically. We also saw that businesses set up in 1985 and early 1986 seemed to do better than those established in the last quarter of 1984.

7.2.1 Analysis

The analysis of survivorship data is a highly technical matter: readers who are interested in such details of our analysis will find them in the Appendix to this chapter. Here we present only the main results.

We began our investigation of factors related to the duration of the business by specifying a set of variables which we felt were likely to be important. These are listed in Table 7.1.

If we look at the relationship between duration of the business and each variable taken singly, we find that the following variables are related to duration:

(1) as we noted in Chapter 3, businesses set up after 1984 survived longer than those set up in the last quarter of 1984;

(2) businesses established in the areas of Agriculture, Fishing and Forestry and in Manufacturing were least likely to survive. The most likely to survive were those in the Business, Insurance and Financial services;

(3) businesses operated from premises were likely to survive longer than those operated from home;

Table 7.1: *Variables Used in the Analysis of Business Survival Rates*

(1) *Characteristics of the Business:*
    (a) the date ?₁ which respondent entered Enterprise (measured in quarters);
    (b) the sector in which the business was located (categorised into six groups);
        (i)   agriculture, fishing, forestry
        (ii)   manufacturing
        (iii)   building and construction
        (iv)   shops and wholesalers
        (v)   business, insurance and financial services
        (vi)   personal and other services.

(2) *Organisation of the Business:*
    (c) whether sole or joint (partnership, etc.) ownership
    (d) whether operated from home or premises
    (e) amount capitalised
    (f) amount initially invested in the business.

(3) *Personal Characteristics:*
    (g) whether had previous experience in this area (in terms of previous employment or possession of qualifications)
    (h) level of education
    (i) whether or not attended a FAS (formerly AnCO or other) business course (e.g., Start Your Own Busines; Self-Employment as a Career)
    (j) whether respondent's spouse (if any) was working
    (k) whether respondent possessed any formally certified skills (e.g., apprenticeship; City and Guilds; trade qualification)
    (l) sex of respondent
    (m) duration of unemployment before joining Enterprise
    (n) age of respondent

(4) the larger the initial sum invested in the business, the longer it was likely to survive;

(5) respondents with some relevant previous experience were more likely to set up businesses that would survive;

(6) the same was true of respondents who possessed some formally certified skills;

(7) respondents who lacked any educational qualifications were less likely to set up a business that would survive than were those with some such qualification;

(8) businesses established by respondents who had not attended a FAS business-type course survived longer than businesses set up by those who had;

(9) the length of previous unemployment was negatively related to business survival; that is businesses set up by respondents who had spent a long time unemployed were less likely to survive;

(10) the age of the respondent was related to survival. Businesses running longest were those set up by respondents aged 25-44. Businesses established by the under-25s were least likely to survive.

A simple examination of such bivariate relationships (that is, between the duration of the business and each factor taken separately) may be misleading, in so far as what appear to be two separate influences might not, in fact, differ. For example, our findings that the size of the individual's capital investment is related to the survival of the business may arise because larger capital investment is required in those cases where the business is to be operated from a specific premises rather than from home. However, this latter finding is itself already in our list; thus findings (3) and (4) above could (but may not) be reflecting the same underlying factor.

To solve this problem we carried out a multivariate analysis in which we examined the effects on the survival time of the business of all the factors taken simultaneously. In this way we can determine the specific effect of each on business duration.

The results of this analysis were substantially the same as those of our bivariate analysis, except that the possession of formally certified skills was discovered to have no impact on business duration, and the coefficient for the effect of the length of time unemployed fell short of statistical significance.

7.2.2 Discussion

Referring to our initial discussion of the usefulness of different kinds of factors for indicating which business proposals submitted to Enterprise are likely to be successful (in the sense of businesses which survive longest), we suggested that personal characteristics of the applicant are likely to be most useful, while some organisational features of the proposed businesses are likely to be of some value. On these bases, then, and following our analyses, we suggest that the following factors are associated with businesses likely to survive longest:

(1) Personal characteristics:
possession of relevant experience gained via previous employment/self-employment or formal training; aged 25-44; having at least some formal educational certification

(2) Organisational features of business:
business operated from specific premises rather than from home; larger, rather than smaller, initial investment of own capital.

Because the duration of prior unemployment is related to other variables in our analysis (notably the level of educational attainment) it does not appear as statistically significant in this context. Nevertheless, taken singly it is a good predictor of business survival. Other personal factors — such as sex and the possession of formally certified skills — do not seem to be good indicators of

business survival. Conversely, our data suggest that having taken a FAS self-employment course may even be associated with earlier business failure. Why this should be so is not clear. However, it seems extremely unlikely that such a course could make someone more likely to fail in business. At worst such a course might be of no positive benefit to participants: it is difficult to conceive of how it could have a negative effect[14]. This being so, our finding in regard to FAS courses could arise because of the kind of people who enter such courses and then enter Enterprise. If, for example, the *ex ante* probability of establishing a successful business is lower among Enterprise entrants who also take a FAS "Start Your Own Business" type course than the average for all Enterprise entrants, the negative effect we have discovered may be a reflection of this. The clearest characteristics of FAS participants among our sample were sex and educational level (FAS participants being disproportionately female and being more likely than the average Enterprise entrant to possess some educational qualifications). However, controlling for these factors in our analysis (as shown in Table 7.3) still leaves a significant negative effect associated with FAS course participation. On this basis, and on the basis of other analyses which we undertook, we were unable to identify any factors associated with FAS participants in our sample which might account for the poorer survival rates of businesses established by them. This suggests that some unmeasured variable may be playing such a role. While this seems the most plausible explanation, our finding nevertheless raises the question of the value of FAS courses of this type to Enterprise participants. Furthermore, the higher rate of business failure among this group than among Enterprise entrants on average also raises the issue of the criteria that should be applied when admitting participants to "Start Your Own Business" type courses.

In Chapter 6 we suggested that partnerships might be especially vulnerable to failure; our analysis here gives no support to that suggestion.

The factors listed above provide a guide to determining the likely success of Enterprise businesses, though clearly their use in, say, deciding whether to admit someone to the scheme, would have to be tempered with a good deal of common sense and local knowledge. If, for example, an Enterprise applicant had a particularly good business idea, then it would be foolish to reject his or her application because of a failure to conform to the factors set out above. On the other hand, judicious use of these factors in vetting applications might be valuable in the less clearcut cases.

14. But it seems unlikely that this finding is due to any statistical "quirk". While the Enterprise participants in our sample who had also taken a FAS "Start Your Own Business" type course are not, of course, an unbiased sample of all those who take such courses (and thus our finding cannot be generalised to this larger group) they are an unbiased sample of all those Enterprise entrants who also took such a course. Furthermore, the data set used for the analyses reported in this chapter contains 40 interviewees who reported having taken such a course: hence any small sample problems are unlikely to account for this finding.

7.3 *Gross Turnover*

Details of our analysis of current gross turnover are given in the Appendix to this chapter. In a multiple regression analysis (adjusted for the problem of sample selection bias) three significant influences on gross turnover were revealed. These are (1) whether or not the business was operated from a separate premises. Businesses operating from premises tended to have higher gross turnover than those operated from home. (2) The level of initial investment in the business was positively related to the level of turnover (as one might expect). (3) The longer the business had been in operation the larger its turnover, all other things being equal. Again, we should expect this to arise as a consequence of the growth of businesses over time. Factors such as the specific sector in which the business traded showed no relationship with gross turnover in our analysis.

7.4 *Current Full-Time Employment*

Gross turnover has the most significant effect on levels of employment, as we might expect. However, our results also suggest that, even allowing for this, businesses set up in the area of Personal and Other Services (as defined in Table 7.1) tend to employ fewer people than do businesses of comparable size and turnover in other sectors. In addition, businesses established in separate premises tend to employ more people than do comparably-sized businesses which are run from the participant's home.

One important point to note, in regard to employment by Enterprise businesses, is that, even at the time of our survey (i.e., roughly two years after the businesses had commenced) the great majority of surviving businesses do not employ anyone, as Table 7.2 shows. All the additional full-time employment

Table 7.2: *Full-Time Employment Levels in Enterprise Business which Survived to the Time of our Survey*

Number of Employees	Percentage of Surviving Businesses
0	82.7
1	6.3
2	5.9
3	1.1
4	0.7
5	1.8
6	0.7
7	0.0
8	0.7
	100.0

generated by Enterprise comes, in fact, from about one-sixth of the surviving businesses.

This Appendix describes the methods used in the analyses carried out in Chapter 7.

7.1.1 Analysis of survivorship

Two methods were used to examine the effects of the factors listed in Table 7.1 on rates of survivorship of Enterprise businesses. The first of these was a simple logistic regression model which expressed the probability of the business having survived to the time of our survey as a function of the variables listed in Table 7.1. Letting p be the probability that the business had survived to the time of our survey, the logit model expresses the log of the odds of this probability as a linear function of the explanatory variables, x_i:

$$\log (p/1-p) = a + \Sigma b_i x_i \tag{7.1}$$

and thus the probability is given as

$$p = \exp (a + \Sigma b_i x_i)/ (1 + \exp (a + \Sigma b_i x_i)) \tag{7.2}$$

The second analysis used a hazard rate approach: the hazard rate for business failure was expressed as a function of the factors. This latter analysis used a non-parametric formulation of the underlying hazard rate via Cox's proportional hazards model. Details of this model are given in Cox (1972). Briefly, the hazard rate at time t — which is the instantaneous risk of failure at t — given the vector of explanatory variables, x_i, is written as $h(t,x_i)$. This is taken to be a function of the baseline hazard rate at time zero, $h(0,x_i)$ and the explanatory variables:

$$h(t,x_i) = h(0, x_i) \exp (\Sigma b_i x_i) \tag{7.3}$$

Both forms of analysis gave the same results in that the same set of factors had statistically significant coefficients in both, with the exception of the age effects, which were significant in the hazard rate analysis but not in the logistic regression. The results of the simpler logistic regresion are shown in Table 7.3.

7.1.2 Analysis of gross turnover

Current gross turnover is only defined for businesses still in operation. However, confining our analysis to those businesses which had survived to the time of our survey was likely to introduce sample selection bias (see, for example, Heckman 1979). The effect of this would be to conflate the effects of the factors on gross turnover with their effect on the likelihood of surviving to the time

Table 7.3: *Logistic Regression of Probability of Survival to Survey*

Variable	Coefficient	Std. Error	T-ratio
ONE	−0.863541	0.9408	−0.918
A1	0.366256	0.4159	0.881
A2	0.474849	0.4436	1.070
A3	0.182913	0.5487	0.333
A4	0.354526	0.7642	0.464
Q1	0.770610	0.4938	1.561
Q2	0.751574	0.5076	1.481
Q3	1.13396	0.4913	2.308
Q4	0.868363	0.4892	1.775
Q5	1.16470	0.4597	2.533
J1	0.386075	0.6092	0.634
J2	0.824903	0.6506	1.268
J3	0.405229	0.5891	0.688
J4	0.857907	0.7646	1.122
J5	1.18430	0.6333	1.870
PE	0.577671	0.2854	2.024
SJ	0.384004	0.3817	1.006
HP	−0.707151	0.3103	−2.279
FAS	−1.09811	0.3969	−2.767
SPW	−0.349442	0.3083	−1.133
SKILLS	0.524210	0.2932	1.788
START	0.779984E-04	0.3569E-04	2.185
TIMEU	−0.412951E-02	0.2544E-02	−1.623
ED1	−0.781278	0.6341	−1.232
ED2	−1.24097	0.6373	−1.947
ED3	−1.35484	0.6606	−2.051
SEX	0.412961	0.4427	0.933

Key: Variables   One = Intercept

J1 to J5 = Sector of business (J1 = manufacturing; J2 = building and construction; J3 = retail and wholesale; J4 = business, insurance, financial services; J5 = personal and miscellaneous services)

Q1 to Q5 = quarter when business started (Q1 = 85, 1 ... Q5 = 86, 1)

A1 to A4 = age group of participant (A1 = 25-34; A2 = 35-44; A3 = 45-54; A4 = 55 or older)

PE = 1 if respondent had previous experience in the area

HP = 1 if business operated from home rather than premises

SJ = 1 if respondent is sole owner of business

FAS = 1 if respondent did FAS Start Your Own Business course or similar SPW = 1 if spouse works outside the home

SKILLS = 1 if respondent has certified skills

TIMEU = time (in weeks) unemployed before entering Enterprise

START = level of initial investment

ED1 to ED3 = level of educational qualification (1 = Leaving Certificate; 2 = Inter or Group Cert; 3 = no educational qualifications)

SEX = 1 if interviewee male.

of our survey. To overcome this, we used Heckman's two stage estimator. The first stage was to fit a probit model of the probability of surviving to the time of the survey (the so-called selection equation): in this we used, as independent variables, those variables which had statistically significant coefficients in our analysis of survivorship. This model was fitted to our entire sample. The probit model is akin to the logit used earlier, except that here the probability of an event occuring (in this case the probability of surviving to the time of the survey) is modelled by assuming that the value of the observed dichotomy (survived / did not survive), which we label y, is given as the realisation of an underlying continuous variable, y^*, so that

$y = 1$ if $y^* > 0$

$y = 0$ otherwise

and

$y^* = a + \Sigma b_i x_i + u$

Thus the probability that $y = 1$ is given by

$p(y=1) = p(u > - \Sigma b_i x_i) = 1 - F(- \Sigma b_i x_i)$

where F is the cumulative normal distribution function for u (see Maddala, 1983, p.22, for further details).

The second stage involved an OLS regression of gross turnover on a set of independent variables, carried out only for those businesses still in operation. We also included the inverse Mills ratio measure derived from the probit to allow for the sample selection problem. Briefly, the rationale behind this procedure is that this ratio measures the instantaneous risk of being included (excluded) from the sample within which the analysis is being carried out: in our case this refers to the instantaneous risk of having failed to survive to the time of the survey. The inverse Mills ratio is derived from the probit model as

$$\frac{f \ (\Sigma b_i x_i)}{F \ (\Sigma b_i x_i)}$$

where $f(.)$ is the normal density function and $F(.)$ the normal distribution function. The results of the probit and of the OLS regression are given in Tables 7.4 and 7.5. The fact that the Mills ratio variable is found to be statistically singificant in the results shown in Table 7.5 indicates that there would have been bias in our results had we omitted it, since those businesses which survive on average have, as we might expect, higher levels of gross turnover than those which fail.

7.1.3 Analysis of full time employment

In analysing the levels of employment in businesses which were still in

Table 7.4: *Selection Equation (Probit) Model*

Variable	Coefficient	Std. Error	T.ratio
ONE	−0.466355	0.3001	−1.554
AA	0.237024	0.1665	1.423
QQ	0.591152	0.2297	2.574
JJ	0.428725	0.1783	2.404
PE	0.452509	0.1526	2.964
HP	−0.308710	0.1639	−1.883
FAS	−0.676881	0.2278	−2.972
START	0.386768E-04	0.1849E-04	2.092
TIMEU	−0.237743E-02	0.1523E-02	−1.561
ED3	−0.187188	0.1719	−1.089

Variables as in Key to. Table 7.3 plus:

AA = 1 if respondent aged 25-44;
QQ = 1 if entered scheme in 1985 or 1986;
JJ = 1 if business is either in business, insurance, financial services or personal and miscellaneous services

Table 7.5: *Corrected OLS Regression of Gross Turnover*

Variable	Coefficient	Std. Error	T-ratio
ONE	−18011.0	0.1789E+05	−1.007
MILLS	−0.141484E-06	0.3313E-07	−4.271
J1	18095.7	0.1558E+05	1.161
J2	13048.3	0.1643E+05	0.794
J3	19209.4	0.1490E+05	1.290
J4	8405.76	0.1863E+05	0.451
J5	−5174.15	0.1572E+05	−0.329
PE	443.554	7204	0.062
HP	−24340.4	7357	−3.309
START	1.63336	0.3259	5.013
TIMEU	−26.5843	66.59	−0.399
AA	3072.05	7527	0.408
DUR	487.116	103.3	4.716

$R^2 = .22$

Variables as in Keys to Tables 7.3 and 7.4 plus:
MILLS = inverse of the Mills ratio
DUR   = length of time (in weeks) the business has been in operation

operation, the same problem of sample selection bias arises. We attempted to solve this in the same way as for the analysis of gross turnover. We used the same inverse Mills ratio measure in our regression of numbers currently employed full time on a set of independent variables. This was to allow for the possibility that levels of employment and survivorship are themselves correlated-which we see (by virtue of the statistically significant coefficient for the Mills ratio variable in Table 7.6) is indeed the case: businesses which survive tend to have generated

Table 7.6: *Corrected Poisson Regression of Current Employment*

Variables	Coefficient	Std. Error	T-ratio
ONE	2.21144	1.034	2.138
MILLS	−2.22733	0.7696	−2.894
TURNOVER	0.488275E-05	0.7959E-06	6.135
J1	0.158278	0.7453	0.212
J2	−0.355106	0.7964	−0.446
J3	−0.573495	0.7440	−0.771
J4	−1.39026	0.9337	−1.489
J5	−1.65593	0.8563	−1.934
PE	−0.327707	0.3207	−1.022
HP	−1.12761	0.3342	−3.374
START	−0.279506E-05	0.3418-05	−0.818
TIMEU	0.501071E-02	0.3935E-02	1.2734
AA	−0.907155	0.2660	−3.410
DUR	−0.730290E-02	0.5307E-02	−1.351

Variables as in Keys to previous tables plus

Turnover = current gross annual turnover of the business in £s.

more employment. In this case, however, rather than using an OLS regression, we estimated the model as a Poisson regression. This is because of the nature of the dependent variable (a count measure) and its restricted range (a maximum of eight) and distribution (a large number of observations clustered at zero). The results of this analysis are given in Table 7.6.

The Poisson formulation expresses the probability that the observed number of employees, y, is equal to the value r (r = 0,1,2,3, etc.) as

$$p(y = r) = \exp{(-\lambda)}[\lambda^r / y!]$$

The parameter, λ, is then regressed as a log-linear function of the explanatory variables:

$$\ln\lambda = a + \Sigma b_i x_i$$

All the analyses carried out in this chapter were performed using William Greene's LIMDEP program.

Chapter 8

SUMMARY OF FINDINGS AND CONCLUDING REMARKS

8.1 *Summary of Findings*

1. Twelve per cent of entrants to Enterprise drop out before they have completed their full period on the scheme.

2. Among those businesses which survive to the end of the Enterprise year there is a high failure rate over the next 13 weeks. About 21 per cent of all businesses fail at this stage — i.e, when the weekly allowance ceases. After that the failure rate begins to tail off, so that at the time of our survey — an average of two years after our sample members had entered Enterprise — 60 per cent of businesses are still operating. Of these, 55 per cent are in full-time operation, 5 per cent part-time. Our data show an improvement in the survival rates of businesses set up in 1985 and early 1986 when compared with those established in late 1984.

3. Every 100 businesses still in full-time operation at the time of our survey employ 44 workers on a full-time basis.

4. We expressed our job creation figures in terms of person-years of employment created. By the end of the Enterprise year, 57 person-weeks of employment (and self-employment) will have been created per Enterprise participant. After a further year this will have increased to 100 weeks per participant. However, these figures do not take account of displacement or deadweight effects. We believe that the deadweight element of Enterprise is around 49 per cent. We estimate that just over 90 per cent of the business done by Enterprise firms is taken from other Irish firms, while, for every 100 full-time jobs created by the scheme (in employment and self-employment), around 60 are displaced elsewhere in the economy. However, a considerable degree of uncertainty must be attached to any measures of displacement. Net of deadweight and displacement, our estimates suggest that after one year 12 weeks of additional full-time employment and self-employment will have been created per participant; after two years 17 weeks. Turning to the effect of this on the Live Register it suggests that, after two years, one person is removed from

the Live Register for one year per three Enterprise participants. The position at the end of two years can be summarised as follows:

the job creation effect of Enterprise :for every 100 entrants to Enterprise, about 34 person — years of net additional employment/self-employment will be produced;

the effect of Enterprise on measured unemployment: for every 100 entrants to Enterprise, about 32 persons will be removed from the Live Register for one year.

5. The total gross costs of Enterprise per participant (the Enterprise allowance and administrative overheads plus any PRB capitalised) amount to around £2,300 on average. The net cost (taking account of Exchequer savings and returns to the Exchequer from the businesses established by the scheme as well as ESF subventions)is around -£2,000 per participant by the end of the Enterprise period, and almost -£6,000 one year later. In other words, were it not for the effects of deadweight and displacement, Enterprise would generate a profit to the Exchequer. If comparisons are to be drawn between Enterprise and other job creation initiatives for which displacement and deadweight have not been allowed, then these are the figures that should be used. However, taking account of deadweight and displacement changes the picture considerably, such that the scheme, even by the end of the second year, entails a net cost to the Exchequer as follows:

cost per participant: £770

cost per person year of employment/self-employment created: £2,300

cost of removing one person from the Live Register for one year: £2,400

These figures do not take into account support which participants may receive from other State schemes (such as EIS; PRSI exemption scheme) or other State agencies (e.g., YEA (now FAS) grants; IDA grants, etc.). During this two year period the average cost of such assistance to each Enterprise participant was £328.

6. Given the survivorship of just over half of Enterprise business beyond two years, the question arises of whether, if we costed the scheme again at a later date, the costs presented above would be found to have diminished further and, indeed, if the scheme would eventually break even. Considerable uncertainty surrounds this issue, not only because of the difficulties of knowing the level of Exchequer returns that each surviving business would be likely to generate, but also because a number of factors which are relatively unimportant in making short-run costings may well feature more prominently

in longer-run estimates. Some indication of the magnitude of these difficulties lies in the fact that in Britain the MSC refuses to cost Enterprise at any point beyond the end of the Enterprise period itself. The most favourable — but unlikely — scenario shows the Irish scheme breaking even after five years. In this report we have costed the scheme taking the position at the end of two years. It is possible that costs could fall in future years given the survival of a proportion of businesses, but this is by no means certain.

7. Three-quarters of Enterprise businesses are located in the services sector, many of them in areas which are probably already overcrowded with competitors. This limits the scope of the scheme for bringing about net increases in overall employment (because, in an overcrowded market, increases in one firm's employment can only occur via displacement elsewhere) and may also limit the growth of such firms.

   Most Enterprise businesses are small, but a few — 10 per cent of surviving businesses in our sample — had a gross turnover of £100,000 or more. However, these larger businesses were found in manufacturing and retailing, giving rise to the suspicion that their growth had occurred at the expense of already existing firms in these areas.

8. Additional full-time employment in those businesses in operation at the time of our survey was heavily concentrated in a few businesses. Eighty three per cent of such businesses employed no one on a full-time basis: thus less than 20 per cent of surviving businesses accounted for all the additional full time employment in our survey.

9. Business survival appears to be related to certain characteristics of the individual Enterprise participant and to certain features of the organisation of the business. Businesses most likely to survive were those where the participant

   was aged 25-44;

   had previous experience of the work involved in her/his businesses or had had formal training in the area;

   and had at least a minimal level of educational qualifications;

   and where the business

   operated from a specific premises rather than home;

   and had a large, rather than small, initial investment of capital.

   In addition, taken by itself, the duration of prior unemployment is a good indicator of likely business success, in so far as businesses set up by those who

had spent a short time, rather than a long time, unemployed before entering Enterprise were likely to survive longer.

8.2 *Concluding Remarks*

8.2.1 Overall assessment

An overall assessment of a scheme such as Enterprise can only be made in relation to the scheme's objectives. If we take a fairly narrow view of Enterprise's objectives as being to help the unemployed established their own business, then clearly the scheme can be considered successful. The rate of business failure, at 40 per cent after two years, is not high, particularly when considered in conjunction with the pattern of business failures over time (as shown in Figure 3.1) which indicates that businesses which survive the first two years seem likely to continue to exist for a considerable time. In addition the per participant overall cost of Enterprise — at just under £800 after two years — could not be considered high.

However, if we view the scheme as having the aim of addressing the unemployment problem through the creation of additional jobs, then it is rather less successful. In part this is due to the fact that most Enterprise businesses do not then go on to hire employees. In terms both of the survivorship of firms and in the creation of additional employment the performance of Enterprise differs little from that of its UK counterpart. For example, businesses which had been established under the UK Enterprise Allowance Scheme in early 1984 generated 68 additional jobs per 100 businesses surviving after 18 months. Of these jobs, 24 were full-time and 44 part-time. In Enterprise, after 24 months 64 people were employed per 100 surviving businesses. These employees were made up of 28 full-time, 25 part-time and 11 on schemes or in apprenticeships. However, in both the Irish and UK schemes additional employment is heavily concentrated in a small number of firms, with the great majority of surviving firms employing no one. This probably reflects the fact that businesses established under the scheme are, with some notable exceptions, slow to grow. This may be because of the difficulties which they face in trying to expand or, alternatively, it may be that the individuals who establish these businesses are satisfied with a moderately sized enterprise which provides them with an adequate, if not over-large, source of income.

The high levels of deadweight and displacement lead to low rates of net additional job generation. It seems to us inevitable that the majority of the businesses in our sample cause displacement in other small businesses. Together with the level of deadweight on the scheme this both reduces the measured effectiveness of the programme and increases estimates of the overall Exchequer costs.

We can also examine Enterprise from a distributional point of view. Since the scheme is open only to the unemployed it clearly redistributes in their favour: displacement can be seen as an effect of this. However, among the unemployed, Enterprise seems unlikely to be of benefit to those who experience the greatest difficulty escaping from unemployment — such as the long-term unemployed or early school leavers. Table 3.3 shows that the long-term unemployed make up 30 per cent of Enterprise entrants, but, as we noted in Chapter 7, businesses are more likely to fail the longer the participant had been unemployed before entering the scheme. More generally, it seems reasonable to suppose that those unemployed people who enter Enterprise and whose business survives will be the most enterprising among the unemployed — precisely those who would have gone into business even without the scheme or else acquired jobs. It could be argued that the fact that Enterprise "draws off" such individuals means that others among the unemployed (such as the long-term unemployed) increase their own chances of getting the jobs that Enterprise participants might otherwise have taken. However, if the intention is to direct help towards those members of the unemployed who most require it, this strikes one as an unnecessarily roundabout way of achieving it.

In summary, our overall assessment is that, since Enterprise seems to have a limited "social" or equity role in the sense of aiding what we might term the priority groups among the unemployed — favouring, as it does (and by definition) the more enterprising among the unemployed — it should be judged in terms of how well it achieves its central economic goal — that of creating additional jobs and reducing unemployment. We feel that it makes only a modest contribution in these areas. The main obstacles to its making a greater contribution are, first, the fact that the majority of Enterprise firms generate no additional jobs; and, second, the high level of displacement among Enterprise firms. It should be restated, however, that displacement is inherently difficult to estimate and the results of our analysis are highly sensitive to different estimated levels of displacement. We do not feel that the level of deadweight should necessarily be seen as an obstacle to the development of the programme, for reasons discussed in Chapter 4 (Section 4.3.3) and again below.

Accordingly, we do not envisage Enterprise as being a major programme in combating unemployment, though we feel that it has a minor role to play. Rather, we see Enterprise as having a reduced number of participants more stringently selected (both of these trends are already evident in the very sharp decline in the inflow onto the scheme during 1987) but on whom assistance can be more effectively concentrated. The policy recommendations which follow are advanced with this view in mind.

8.2.2 Policy recommendations

The question naturally arises of how the scheme can be made more successful, by, among other things, reducing the level of business failure and making successful businesses more successful (and thus generating more additional jobs) without increasing (and, if possible, decreasing) the overall cost of the programme. Our suggestions are as follows:

Enterprise has clearly become a less costly scheme with the passage of time, if only because the level of the allowance has remained constant in nominal terms and, furthermore, the scheme now qualifies for ESF subvention. In addition, the average gap between the weekly Enterprise allowance and social welfare payments has undoubtedly increased possibly leading to a more favourable Exchequer cost position. However, were an unchanged level of allowance to persist it might lead to a reduction in the attractiveness of the scheme to the unemployed; but, possibly of more importance, is the consideration that, if the level of the allowance were to fall too far relative to levels of social welfare payment, then entry to the scheme would require an increasing proportion of participants to take an initial cut in their weekly income. This would seem to be undesirable on both equity grounds and on grounds of efficiency, since it would be placing an additional obstacle in the path of the would be businessman or woman. Given that the allowance has been fixed at its present rates since the inception of the scheme, consideration might be given to increasing it in future years at the same rate as, or in some proportion to, the increase in social welfare rates.

Some respondents to our survey and in informal interviews suggested that the period during which the allowance was paid — 12 months — was too short, and that new businesses required this support for a longer period. However, we feel that the period of 12 months is sufficient. Although a number of businesses fail at the end of the Enterprise 12 months, very few failed businesses cited the end of the allowance as the main reason for business failure, and it must be doubted that those few businesses which failed for this reason would have been viable in any case.

The arrangements for the capitalisation of the allowance and/or outstanding PRB seem to us to be adequate. We found no real evidence of "capital rationing" arising from the failure of commercial sources (such as banks) to lend to Enterprise businesses. The results of our survey suggest that banks and other lenders base their decision to lend on normal criteria concerning the likely success of the business. On the other hand, we believe that capitalisation should be retained for those participants who cannot acquire the start-up capital from their own resources or via borrowing. Capitalisation is likely to prove useful in cases where, for example, the participant has no source of collateral for a loan and no one willing to stand as guarantor of a loan.

We believe that the move to greater selectivity in admission to Enterprise is likely to improve the performance of the scheme (but see below for a caveat). Our analyses suggest that certain factors (listed above) are likely to be predictive of business success. These might then be used as part of the process to select candidates for the scheme. Of course, the use of such criteria should not override the value of a good business idea, and there must still be scope for judgements by local placement officers in the light of the prevailing local situation.

In addition, however, more effort should be put into selecting entrants to the scheme whose business is unlikely to displace already existing firms. For example, firms orientated towards the export market or import substitution should be given first priority under the scheme. Applications for businesses in the services area — unless they are providing a totally novel service or one which is not readily available in the locality — and in the building/construction sector should be treated with considerable circumspection. The same should also apply to small manufacturing concerns, where the levels of displacement may also be very high.

Selection along these lines should increase the effectiveness of the scheme (by reducing the number of business failures and the level of displacement) and reduce the overall Exchequer cost.

However, attempts to introduce greater selectivity will almost inevitably lead to increased deadweight. This is because factors which are predictive of business success-such as operating from premises rather than home — are also associated with higher levels of deadweight. Nevertheless, we believe that this is not necessarily an undesirable outcome. Indeed, it is inevitable that businesses which promise most would have the highest likelihood of being started even without the scheme. Furthermore, in the context of Enterprise, deadweight does not necessarily imply a waste of public money. This is the argument we made in Chapter 4. Certainly, the weekly allowance, even if it cannot be held responsible for initiating a new business, must assist in its development (though it is not possible to quantify this effect). On this basis, then, we would argue that no attempt should be made to minimise deadweight via greater selectivity of entrants. Rather, selectivity should seek to maximise the level of returns to the scheme while minimising displacement effects.

The importance of selectivity can be seen by examining the likely consequences of a non-selective policy of admission to the scheme. This would probably lead to an increased failure of businesses which could bring with it difficulties both for those whose enterprise failed — notably financial loss — and, possibly, for others — such as suppliers and creditors — who had dealings with the failed businesses.

Finally, the amalgamation of the various manpower agencies into FAS raises the question of the integration of programmes like Enterprise with the various training courses targetted at potential small business operators, such as "Start

Your Own Business" and "Self-Employment as a Career". As we saw in Chapter 7, attendance at such courses appears, contrary to expectations, to be associated with higher than average rates of business failure among Enterprise participants. This suggests that greater selectivity might be applied in allowing entry to these programmes as well as to Enterprise itself. Within this framework a greater degree of linkage between training and Enterprise seems desirable, such that, if possible, enterprise training would be available (though not obligatory), prior to start up, to all those accepted onto Enterprise.

In interviews with Enterprise participants it became clear that a number of them felt that assistance and advice during the first year of operation would have been useful. Particular areas mentioned in this regard include taxation, VAT, marketing, accounts, and suchlike. The availability of advice and assistance in these areas during the period when the business is in operation may well be of more value than learning about these things before setting up in business. Short weekend or one day courses for Enterprise participants in a particular area might be one way of making such assistance available. An alternative would be to have a business consultant in each FAS area who would be available to respond to queries that participants might have and problems they might meet as their business developed. Operating in conjunction with FAS placement officers in the monitoring of Enterprise businesses, such consultants would be able to give assistance which might, for example, rectify situations which, if left to the participant to deal with, could lead to the demise of the business. A further function of such consultants could be to draw up a business development plan with each participant at the time he or she finishes the Enterprise period. The consultants could either be direct employees of FAS or could be hired by it under contract.

Overall then, these suggestions imply a greater integration of training programmes and the Enterprise scheme together with a move towards increased support for ongoing small businesses, possibly utilising some of the resources currently orientated towards pre-start up enterprise training.

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