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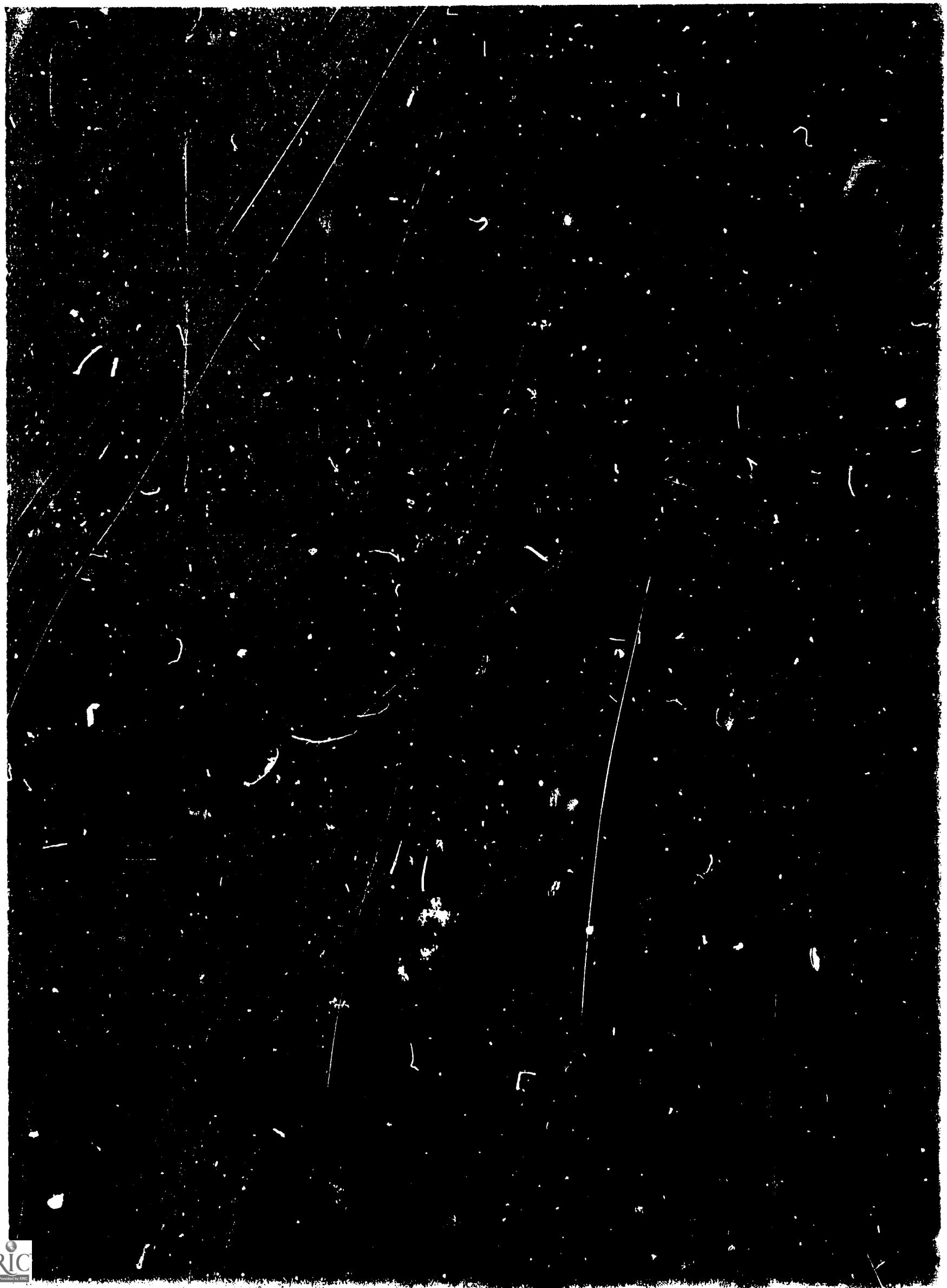
ABSTRACT

This report identifies the demographic and economic characteristics of participants in government-sponsored on-the-job training projects in Ontario, and investigates possible relationships between these characteristics and success in training. The experience of over 1,200 trainees in 16 projects indicates that successful trainees tend to be older males with families. Previous labor force experience also contributes to success, although no relationship was found between length of unemployment and success in training. The implications for trainee selection and program objectives are discussed. (BH)



CHARACTERISTICS OF GRADUATES AND DROPOUTS FROM GOVERNMENT-SPONSORED ON-THE-JOB TRAINING PROGRAMMES

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INTRODUCTION

This is the second report produced by the Research Branch of the Ontario Department of Labour that deals with an analysis of government-sponsored on-the-job training projects in Ontario. While the first report dealt with a methodology for cost-benefit analysis,[1] the purpose of this study is to review the demographic and economic characteristics of the trainees, and determine whether or not these characteristics are related to success in training. The measure of success used in the analysis is graduation from the training programme.[2]

The extent to which demographic and economic characteristics influence the graduates' decisions to remain with the training firm after the completion of the training programme, will also be discussed. This additional analysis of retention rates (that is, the proportion of graduates who remain with the training firm) will be of interest to employers involved in on-the-job training projects. Since government assistance does not cover the total cost of the training project, the employer loses part of his investment when a graduate leaves the firm.

The report is divided into five parts. The first section contains a description of the criteria used for selecting projects for analysis, and it is followed by a description of Ontario's on-the-job training programme in the second section. This provides the necessary background information for an analysis of the data. After a discussion of the characteristics of the trainees, the fourth section examines the influence of these characteristics and others on success in training. Finally, the results achieved from this study of Ontario's training programme are compared to the results of similar studies in the United States.

SCOPE AND METHOD

This report is based on the experience of 1,245 trainees in sixteen on-the-job training projects in Ontario. The trainees in the sample represent 14.1 per cent of the 8,821 persons who had entered government-sponsored on-the-job training programmes in the Province

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1. Alan Strang and Frank J. Whittingham, A Proposed Methodology for Cost-Benefit Analysis of Government-Sponsored Training-in-Industry, Research Branch, Ontario Department of Labour, August 1970.

2. A discussion of other possible measures of success is provided later in the report.

between April 1967 and April 1969.[3] It should be noted that a random sample was not taken. Rather, projects were chosen on a judgement basis in order to ensure a representative cross-section on an industry and a geographic basis, and, as well, to ensure variation in the personal and labour force characteristics of the trainees. Another constraint in selecting projects was availability in the companies of adequate personnel and payroll records to provide the information required on each trainee.

Projects were selected as of April 30, 1969; that is, in order to be eligible for selection, the training project must have been completed before this cut-off date. The projects chosen are listed in Table 1. They were drawn from ten industries and five of the ten standard Ontario economic regions.

As a random sample was not taken, caution must be used in generalizing from the results of this study. Since the analysis is based only on the experience in the sixteen training projects selected, the results are only representative of the area and industry combinations referred to. Therefore, inferences from the data presented to all training projects in the programme should not be made.

Also, the analysis is presented in the form of a cross-sectional tabulation of two variables. While the use of a more advanced statistical technique (e.g. multiple regression) would add to one's knowledge of the relationship between variables, the results obtained parallel fairly closely well documented labour force participation behaviour patterns and do not appear to be misleading.

A word of caution is also necessary on interpretation of retention rates. These rates were calculated on the basis of the training graduate's employment status with the firm as of April 1969. Since not all training projects were completed at the same time, the

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3. This sample of 14.1 per cent compares favourably with the sizes of samples used in other studies. For example, Gibbard and Somers used a sample of 734 trainees out of a total of 7,500 for an examination of training in West Virginia. See Harold A. Gibbard and Gerald G. Somers, "Government Retraining of the Unemployed in West Virginia," in Retraining the Unemployed, Gerald G. Somers, (ed), (University of Wisconsin Press, 1968). Also, Nosow for an examination of trainees enrolled under M.D.T.A. used a sample of 406 trainees out of a total of 40,221. See: S. Nosow, Retraining Under the Manpower Development Training Act, A Study of Attributes of Trainees Associated With Successful Training, Contract No. MDTA 9-63 U.S. Department of Labor, Manpower and Administration, Office of Manpower Policy, Evaluation and Research, January 1969.

TABLE 1

DISTRIBUTION OF TRAINING PROJECTS SELECTED FOR THE STUDY BY INDUSTRY, AREA AND OCCUPATION OF TRAINING

Industry	Region	Skill	Graduates	Dropouts	Total
Mining	Northeastern Ontario	Miners	99	42	141
Mining	Northeastern Ontario	Miners	23	27	50
Electrical Products	Eastern Ontario	Electrical Operators and Inspectors	118	49	167
Electrical Products	Eastern Ontario	Production and Prototype Assemblers	45	8	53
Electrical Products	Georgian Bay	Electrical Assemblers	146	36	182
Electrical Products	Eastern Ontario	Tool Assemblers and Machine Operators	19	1	20
Printing and Publishing	Eastern Ontario	Collators	8	3	11
Textiles	Eastern Ontario	Knitting, Dyeing, and Finishing Machine Operators	58	-	58
Textiles	Eastern Ontario	Process Operators, Electricians, Instrument and Maintenance Mechanics	106	-	106
Miscellaneous Services	Central Ontario	Heavy-Duty Equipment Mechanics	17	3	20
Miscellaneous Services	Central Ontario	Customer Engineers	16	-	16
Food and Beverages	Central Ontario	Cheesemakers	13	4	17
Transportation	Central Ontario	Bus Drivers	144	10	155
Clothing	Eastern Ontario	Sewing Machine Operators	63	67	130
Non-Metallic Mineral Products	Georgian Bay	Glass Production Personnel	80	-	80
Metal Fabricating	Niagara	Valve Grinding Machine Operators	30	-	30
TOTAL NUMBER			995	250	1,245
TOTAL PERCENTAGE			79.9	20.1	100.0

analysis of retention rates involves different time periods for different projects. Thus, it is only an approximate measure of how long the graduate remained with the firm after completion of his programme.

Before turning to the comparison of characteristics of graduates and dropouts some background material is presented in the next section. This involves a brief description of government-sponsored on-the-job training in Ontario, and an overall review of the characteristics of the trainees contained in the sample.

GOVERNMENT-SPONSORED ON-THE-JOB TRAINING IN ONTARIO

Organization of the Programme

In Ontario, the responsibility for government-sponsored on-the-job training projects in industry falls under the jurisdiction of the Department of Labour. The training focuses on skills where apprenticeship is not required, and is designed to train the unemployed or upgrade the employed personnel with a firm. The hiring and training of the trainee are conducted by the individual firm which in turn receives government assistance towards training costs. This assistance comes from both the Federal and Provincial levels of government.

When a request is made for training assistance, the firm is visited by an Ontario Department of Labour development officer and a representative from a Canada Manpower Centre. The skill requirements of the firm are determined and a training format is drawn up, along with a cost schedule for reimbursement to the company upon production of graduates. Once the format of the training programme has received company and government approval, it is implemented and monitored by representatives from the Ontario Department of Labour and the Canada Department of Manpower and Immigration.

A training project is divided into two stages: vestibule (non-productive) and shop (productive). "Vestibule" is that training which may be conducted in a classroom or area remote from the production area, or on the production line, provided that the machine on which training is given is not producing marketable items. "Shop" training is on-the-job training which involves the production of saleable goods.

Under the Adult Occupational Training Act[4], Federal government assistance to the training firm is limited to persons who have not attended school on a regular basis for at least twelve months

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4. The House of Commons of Canada Bill C-278. An Act Respecting the Occupational Training of Adults, Queen's Printer, Ottawa, 1967.

and have one or more persons wholly or substantially dependent upon them, or who have been members of the labour force for not less than three years. Also, the Federal government will only subsidize the vestibule component of a training project. In this regard, the firm may be reimbursed up to 100 per cent of the instructors' wage costs and 50 per cent of the wage costs of each trainee in the vestibule part of the project when the trainee graduates. For vestibule training, the Provincial government will pay the same amount for graduates who do not qualify for Federal assistance and, in addition, will subsidize up to 25 per cent of all trainees' wages for the shop part of a project. No payments are made for persons who drop out of an on-the-job training project in Ontario, and all other costs are the responsibility of the training firm.

CHARACTERISTICS OF TRAINEES

The question, "Who is being trained?" is briefly explored in this section. The characteristics of the 1,245 trainees are described and, where possible, comparisons are made with the characteristics of the total Ontario labour force.

Sex and Age

The sex and age distribution of the sample of trainees is compared with a similar distribution for the Ontario labour force in Table 2. Males accounted for two-thirds of the trainees and females constituted the remaining one-third. The latter is in line with the distribution of the Province's labour force by sex, and suggests that the on-the-job training programme has been equally open to males and females.

An examination of the age distribution of trainees suggests that younger trainees are over-represented in the programme. Only 6.7 per cent of the trainees were 45 years of age or over, but workers in this age group accounted for 33.7 per cent of Ontario's labour force. At the other end of the distribution, over one-half of the trainees were 24 years of age or under, while these workers accounted for only 22.2 per cent of the provincial work force.

When male and female trainees were compared separately to the Ontario labour force similar patterns emerged. For example, 48.8 per cent of the male trainees were 24 years of age or under, while males in this age group accounted for 19.0 per cent of the male Ontario labour force. The respective figures for female trainees and the female Ontario labour force were 57.1 and 29.0 per cent.

This over-representation of younger workers in on-the-job training projects may, in part, reflect their greater availability in the labour market. In recent years, there has been an influx of young persons into the labour force. Younger workers are also relatively unskilled and in greater need of training than older workers. Further, since the Industrial Training Branch of the Ontario Department of Labour will cover the costs of trainees who do not meet the Adult Training Act eligibility criteria, there may be a greater incentive for employers to train younger workers as the benefits will hopefully accrue over a longer period of time.

TABLE 2

DISTRIBUTION OF TRAINEES AND THE ONTARIO LABOUR FORCE BY SEX AND AGE

Age	TRAINEES[1]					
	Total		Males		Females	
	No.	%	No.	%	No.	%
14 - 19	226	18.3	89	10.8	137	33.0
20 - 24	413	33.3	313	38.0	100	24.1
25 - 44	517	41.7	367	44.5	150	36.2
45 and over	83	6.7	55	6.7	28	6.7
TOTAL	1,239	100.0	824	100.0	415	100.0

	ONTARIO LABOUR FORCE[2]					
	Total		Males		Females	
	No.	%	No.	%	No.	%
	(Estimates in Thousands)					
14 - 19	270	9.5	153	7.9	117	12.9
20 - 24	360	12.7	214	11.1	146	16.1
25 - 44	1,251	44.1	884	45.8	367	40.4
45 and over	956	33.7	678	35.2	278	30.6
TOTAL	2,837	100.0	1,929	100.0	907	100.0

1. For 6 trainees it was not possible to determine their age from available records.

2. The age and sex data for the Ontario labour force are based on unpublished tables from The Labour Force Statistics Canada, Ottawa.

Marital Status and Number of Dependents

Unfortunately, because of the design of the trainee registration form, there was some difficulty in classifying trainees by marital status. The only classifications used on the form are "married" and "single". As a result, the reader should be made aware that other states are likely to be included in these categories; for example, divorced and widowed may be included in "single" and separated in "married".

The data in Table 3 reveal that 44.7 per cent of the trainees were single and 55.3 per cent were married. When males and females are examined separately there is little difference in the distribution between the married and single categories.

TABLE 3

DISTRIBUTION OF TRAINEES BY SEX AND MARITAL STATUS[1]

Marital Status	Total		SEX			
			Male		Female	
	No.	%	No.	%	No.	%
Single	554	44.7	375	45.5	179	43.1
Married	685	55.3	449	54.5	236	56.9
TOTAL	1,239	100.0	824	100.0	415	100.0

1. For 6 trainees it was not possible to determine their marital status from available records.

Among married trainees, only a small proportion, 19.0 per cent had no dependents; but there was a marked difference between males and females in this characteristic (see Table 4). For married males, the proportion with no dependents was a very low 6.7 per cent, while for females it was 42.2 per cent. The high proportion of married females with no dependents can be partly explained by the large numbers of young females amongst the trainees, but it also reflects a difference in level of labour force participation between married females with dependents and their counterparts without this responsibility. Because of the responsibilities and duties in the home that the presence of children create, the labour force participation of married women with dependents is markedly lower than for married women with no dependents. Since entrance into an on-the-job training programme is conditional upon entrance into the labour market, one would expect married women with no dependents to be the

TABLE 4

DISTRIBUTION OF MARRIED TRAINEES BY SEX AND NUMBER OF DEPENDENTS[1]

Number of Dependents	Total		SEX			
			Male		Female	
	No.	%	No.	%	No.	%
none	130	18.9	30	6.7	99	42.2
one	167	24.3	118	26.3	49	20.7
two	146	21.3	115	25.6	31	13.1
three	126	18.4	98	21.8	28	11.8
four or more	117	17.1	88	19.6	29	12.2
TOTAL	685	100.0	449	100.0	236	100.0

1. For 6 trainees it was not possible to determine number of dependents from available records.

dominant group among female trainees. In line with this argument, married female trainees with no dependents comprise 42.2 per cent of all married female trainees, and this proportion declines as the number of dependents increases.

Education[5]

With respect to educational attainment, overall, trainees tended to be better educated than workers in the Ontario labour force. For example, while 54.7 per cent of the trainees had some high school education, only 40.4 per cent of the labour force was in

5. In this section educational attainment data for trainees, which refers primarily to 1967, is compared with educational attainment data for the Ontario labour force as of 1965. However, this two year difference between the sets of data should only have a slight effect on the validity of the comparison. A significant increase in the educational attainment of the population and consequently, of the labour force, can only occur over a very long period of time. As a result the two year difference should introduce little bias into the comparison.

this category (see Table 5). Similarly, 21.1 per cent of the trainees had completed high school education compared with 16.2 per cent of Ontario's work force. At the bottom end of this scale, 24.2 per cent of the trainees had an elementary school education or less. In contrast, a much higher proportion, 33.4 per cent, of the labour force had this low level of educational attainment. These differences in educational attainment between the Ontario labour force and the sample of trainees can partly be explained by the larger proportion of young persons among the trainees. The majority of the trainees were twenty-four years of age or younger and on the average, younger persons have achieved higher levels of education.[6]

TABLE 5

DISTRIBUTION OF TRAINEES AND DISTRIBUTION OF THE ONTARIO LABOUR FORCE BY SEX AND LEVEL OF EDUCATION

Level of Education	TRAINEES[1] Total No.	%	Males No.	%	Females No.	%
Completed elementary school education or less	298	24.2	186	22.7	112	27.3
Some high school education	672	54.7	411	50.3	261	63.5
Completed high school education or more	259	21.1	221	27.0	38	9.2
TOTAL	1,229	100.0	818	100.0	411	100.0

Level of Education	ONTARIO LABOUR FORCE[2] Total No.	%	Males No.	%	Females No.	%
	(Estimates in Thousands)					
Completed elementary school education or less	839	33.4	658	37.3	181	24.1
Some high school education	1,015	40.4	692	39.3	323	43.1
Completed high school education or more	658	16.2	412	23.4	246	32.8
TOTAL	2,512	100.0	1,762	100.0	750	100.0

1. For 16 trainees it was not possible to determine the level of education from available records.

2. The data on levels of education for the Ontario labour force were obtained from Frank J. Whittingham, Educational Attainment of the Canadian Population and Labour Force: 1960-65, Special Labour Force Studies, No. 1, Cat. No. 71-505, Queen's Printer, Ottawa, 1966.

6. See Frank J. Whittingham, Educational Attainment of the Canadian Population and Labour Force: 1960-65, Special Labour Force Studies, No. 1, Cat. No. 71-505, Queen's Printer, Ottawa, 1966, p.10.

COMPARISON OF GRADUATES AND DROPOUTS

As mentioned earlier, success in this report is measured by completion of a training programme.[7] A measure of this sort is of primary interest to a programme administrator in determining which factors influence whether a trainee graduates or drops out. The measure of success chosen will vary with purpose; for example, from the sponsoring company's point of view, a more relevant measure of success would be whether or not a training project will result in an improvement in productivity. Of course, the latter is contingent upon trainees remaining with the firm after completion of a training project. To the trainee, success would be measured in terms of the increase in his lifetime earnings that is attributable to training. Society, on the other hand, might measure success in a number of different ways. These could include a decline in transfer payments, an improvement in economic growth, a more equitable distribution of income, or a better trade-off between high levels of employment and price stability.

Given the above discussion, it becomes evident that the measure of success used in this report, completion of a training project, is a very narrow one. The balance of this part of the paper is devoted to a comparison of successful trainees (graduates) and dropouts to determine whether there are any important differences between them.

Personal Characteristics

A brief description of the trainees' personal characteristics was presented earlier in the report. In this section, the relationship between these characteristics and whether the trainee completes the project or drops out will be examined.

Sex and Age

Overall, four-fifths of the trainees successfully completed their training programme; but, as revealed in Table 6, the proportion of males that graduated (83.9 per cent) was higher than the proportion of females (72.8 per cent). Two explanations can be offered to better understand these results. First, by reference to Table 6 it is shown that graduation rates tend to increase with age. Differences in the age distribution between male and female trainees, therefore, may explain, in part, the differences in completion rates. Whereas 33.0 per cent of the female trainees were under 20 years

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7. This analysis of measures of success is taken from Morley Gunderson, "Determinants of Success in On-the-Job Training," (unpublished paper), Research Branch, Ontario Department of Labour, August 1969, pp 6-8.

TABLE 6

GRADUATE AND DROPOUT RATES BY AGE AND SEX[1]

Age	MALE					FEMALE					TOTAL				
	Total	Graduate		Dropout		Total	Graduate		Dropout		Total	Graduate		Dropout	
		No.	%	No.	%		No.	%	No.	%		No.	%	No.	%
Under 20	89	62	69.7	27	30.3	137	94	69.6	43	30.4	226	156	69.0	70	31.0
20 - 24	313	242	77.3	71	22.7	100	72	72.0	28	28.0	413	314	76.0	99	24.0
25 - 29	170	145	85.3	25	14.7	49	35	71.4	14	28.6	219	180	82.2	39	17.8
30 - 34	92	87	94.6	5	5.4	37	27	73.0	10	27.0	129	114	88.4	15	11.6
35 and over	160	155	96.9	5	3.1	92	74	80.4	18	19.6	252	229	90.9	23	9.1
TOTAL	824	691	83.9	133	16.1	415	302	72.8	113	27.2	1,239	993	80.1	246	19.9

1. For 2 graduates and 4 dropouts information was not available from records to permit a sex by age cross-classification.

of age, only 10.8 per cent of the male trainees were in this category. Since younger workers have lower graduation rates than older workers, the overall graduation rate for females should be less than that for males. These lower rates for younger trainees can be linked to the fact that they are the most mobile members of the labour force.

The lower completion rate for females may partly be related to their more intermittent labour force attachment compared with males. This is especially true for married females who have a very tenuous labour force attachment because of family responsibilities, and in the sample, 56.9 per cent of the females were married. Given the nature of this training, withdrawal from the labour force is synonymous with dropping out of a training programme.

When retention rates are examined by age and sex, the same patterns emerge.[8] The retention rates for females were well below those for males (see Table 7). Whereas 62.1 per cent of the male graduates were with the training firm as of April 30, 1969, only 29.1 per cent of the female graduates were still with the firm. Again these results can partly be attributed to the younger age distribution of the female trainees and the associated higher mobility. These younger workers would be even more mobile after having acquired a skill through training.[9] Also, the domestic responsibilities that force some women to withdraw from the labour force prior to graduation may also cause the withdrawal of others after graduation.

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8. As noted earlier, caution must be expressed in interpreting the data on retention rates. In order to determine these rates, the employment status of graduate trainees was determined as of April 30, 1969. However, since not all the projects ended on the same date, no indication is given as to how long graduates remained with the firm after training.

9. May Nickson, Geographic Mobility in Canada, October 1964 - 1965, Dominion Bureau of Statistics, Special Labour Force Studies, No. 4, Catalogue No. 71-508, Queen's Printer, Ottawa, April 1967, Table 3, p.9. This study pointed out that mobility decreases with age.

TABLE 7

PERCENTAGE OF GRADUATES WHO REMAINED WITH THE TRAINING FIRM BY AGE AND SEX

AGE	MALE	FEMALE	TOTAL
Under 20	28.1	26.3	27.0
20 - 24	50.8	15.0	42.1
25 - 29	71.2	26.5	61.2
30 - 34	81.5	35.1	68.2
35 and over	83.2	47.3	70.3
TOTAL	62.1	29.1	51.1

Marital Status

The existence of a relationship between marital status and success in training is explored in this section. Due to the responsibilities attached to marriage, it was expected that married trainees would have greater stability and a higher propensity to complete a training project. The data in Table 8 confirm this expectation. For married trainees, 86.6 per cent completed training compared with 72.2 per cent for single trainees. Also, the retention rate for married trainees was 62.0 per cent, and for single trainees it was only 37.9 per cent (see Table 9). It should be pointed out, however, that marital status and age are highly interrelated variables and to some extent the older age of married trainees is also a factor underlying their higher completion and retention rates.

A comparison of married males and married females reveals that married males have much higher graduation and retention rates. Whereas the graduation rate for married males was 92.7 per cent, for married females it was only 75.0. The retention rates for married males and married females were 78.0 and 31.8 per cent respectively. Again, the lower graduation and retention rates for married females, may be, in part, due to their more intermittent labour force attachment.

TABLE 8

GRADUATE AND DROPOUT RATES BY MARITAL STATUS AND SEX[1]

Marital Status	MALE					FEMALE					TOTAL				
	Total	Graduate No.	Graduate %	Dropout No.	Dropout %	Total	Graduate No.	Graduate %	Dropout No.	Dropout %	Total	Graduate No.	Graduate %	Dropout No.	Dropout %
Single	375	275	73.3	100	26.7	179	125	69.8	54	30.2	554	400	72.2	154	27.8
Married	449	416	92.7	33	7.3	236	177	75.0	59	25.0	685	593	86.6	92	13.4
TOTAL	824	691	83.9	133	16.1	415	302	72.8	113	27.2	1,239	993	80.1	246	19.9

1. For 2 graduates and 4 dropouts sufficient information was not available for this classification.

TABLE 9

PERCENTAGE OF GRADUATES WHO REMAINED WITH THE TRAINING FIRM BY MARITAL STATUS AND SEX

MARITAL STATUS	MALE	FEMALE	TOTAL
Single	43.7	25.7	37.9
Married	78.0	31.8	62.0
TOTAL	62.1	29.1	51.1

Number of Dependents

Similar to marriage, the presence of dependents is usually seen as a stabilizing influence. One would expect the responsibility for the welfare of others to provide an incentive for male trainees to complete training. For female trainees, however, one cannot predict as easily because the presence of family responsibilities could deter a female trainee from completing her training. By referring to Table 10, it was found that graduation rates improved in a direct relationship to number of dependents, but dropped slightly when trainees had three dependents or more. When male and female trainees are examined separately different patterns emerge. For males, graduation rates increased in relation to number of dependents; but for females this relationship was not as strong. The graduation rate increased for females up to two dependents but fell sharply after that.

The strong relationship between presence of dependents and training success for males is closely interrelated with two variables: marital status and age. The relationship between marital status and number of dependents is obvious. There is also a relationship between number of dependents and age; the older a person is the more dependents he is likely to have. Since older trainees are more likely to graduate, it follows that trainees with more dependents would have higher graduation rates.

As shown in Table 11, retention rates also vary with number of dependents. It is interesting to note the large difference in retention rates for males with one dependent as compared to those with no dependents. The retention rate for male graduates with no dependents was 46.0 per cent while for male graduates with one dependent it was 74.5 per cent, which suggests that the responsibility of providing for

TABLE 10

GRADUATE AND DROPOUT RATES BY NUMBER OF DEPENDENTS AND SEX[1]

Number of Dependents	MALE					FEMALE					TOTAL				
	Total	Graduate No.	%	Dropout No.	%	Total	Graduate No.	%	Dropout No.	%	Total	Graduate No.	%	Dropout No.	%
None	400	299	74.8	101	25.2	270	190	70.4	80	29.6	670	489	73.0	181	27.0
1	122	111	91.0	11	9.0	58	43	74.1	15	25.9	180	154	85.6	26	14.4
2	116	105	90.5	11	9.5	31	28	90.3	3	9.7	147	133	90.5	14	9.5
3 or more	186	176	94.6	10	5.4	57	42	73.7	15	26.3	243	218	89.7	25	10.3
TOTAL	824	691	83.9	133	16.1	416	303	72.8	113	27.2	1,240	994	80.2	246	19.8

1. For 1 graduate and 4 dropouts sufficient information was not available for this classification.

TABLE II

PERCENTAGE OF GRADUATES WHO REMAINED WITH TRAINING FIRM BY NUMBER OF DEPENDENTS AND SEX

Number of Dependents	Male	Female	Total
None	46.0	29.6	39.4
1	75.4	19.0	57.2
2	77.6	29.0	67.3
3 or more	79.6	36.8	69.5
TOTAL	62.1	29.1	51.1

dependents decreases the mobility of male graduates. For females, there was a marked decline in the retention rate as one moves from those with no dependents to females with one dependent; but surprisingly, the retention rate increases again for females with more than one dependent. This reduction in retention rates suggests that a woman's first child makes more demands on her time than do subsequent children. This is supported by the fact that retention rates increased as dependents increased for trainees with more than one child. It may also be possible however, that the greater financial pressure on family units with a large number of dependents forces a larger proportion of wives in these units to remain in the labour force.

Level of Education

For both males and females, level of education appears to have a varied influence in determining success in training (see Table 12). Overall, 77.2 per cent of those trainees with a grade 8 education or less completed training, and 77.6 per cent of those trainees with a grade 12 education or better graduated. Trainees with a level of education in between these two extremes had higher graduation rates. For males, graduation rates increase with level of education until grade 12, and then fall significantly. This may be due, in part, to the fact that younger trainees are generally better educated, and thus, a large proportion of trainees with a grade 12 education or better would be from the lower end of the age distribution.

Also, it was found that graduates with a grade 12 education or better had a greater tendency to leave the firm after training (see Table 13). While this may reflect that the better educated trainees were more mobile and had more job opportunities available to them, again it may be partly due to the younger age of these trainees.

TABLE 12

GRADUATE AND DROPOUT RATES BY GRADES OF SCHOOLING AND SEX[1]

Grades of Schooling	MALE					FEMALE					TOTAL				
	Total	Graduate No.	%	Dropout No.	%	Total	Graduate No.	%	Dropout No.	%	Total	Graduate No.	%	Dropout No.	%
8 or less	186	150	80.6	36	19.4	112	80	71.4	32	28.6	298	230	77.2	68	22.8
9	118	103	87.3	15	12.7	98	77	78.6	21	21.4	216	180	83.3	36	16.7
10	194	171	88.1	23	11.9	125	84	67.2	41	32.8	319	255	79.9	64	20.1
11	99	90	90.9	9	9.1	38	28	73.7	10	26.3	137	118	86.1	19	13.9
12 or more	221	171	77.4	50	22.6	38	30	78.9	8	21.1	259	201	77.6	58	22.4
TOTAL	818	685	83.7	133	16.3	411	299	72.7	112	27.3	1,229	984	80.1	245	19.9

1. For 11 graduates and 5 dropouts sufficient information was not available for this classification.

TABLE 13

PERCENTAGE OF GRADUATES WHO REMAINED WITH TRAINING FIRM BY GRADES OF SCHOOLING AND SEX

Grades of Schooling	Male	Female	Total
8 or less	62.4	38.4	53.4
9	59.3	35.7	48.6
10	69.6	24.8	52.0
11	75.8	15.8	59.1
12 or more	50.7	7.9	44.4
TOTAL	62.1	29.1	51.1

Pre-Training Employment Experience

The analysis now turns to an examination of the pre-training employment experience of the trainees and their success in training. Can one use a trainee's labour force status prior to training or his previous labour market experience as a guide to whether he will complete or drop out of a training project?

Labour Force Status Prior to Training

In regard to labour force status prior to training, the best completion rate was that of trainees who were already employed by the training firm and were upgrading their skills. While 95.4 per cent of the trainees in this category completed their training, only 74.7 per cent of those who were unemployed prior to training and only 66.8 per cent of those who were outside the labour force prior to training completed their training programme (see Table 14). For males, the best graduation rates were for those trainees who were being upgraded by the training firm. Surprisingly, for females the graduation rate of those previously employed with the training firm was less than for those employed elsewhere, and also less than for those females who were unemployed prior to training. These results, however, were heavily influenced by the experience of one firm that employed all females in the training programme, and also had a very high turnover rate for previous employees. Therefore, these results on female graduation rates by pre-training labour force status are too biased to provide any meaningful interpretation.

TABLE 14

GRADUATE AND DROPOUT RATES BY PRE-TRAINING LABOUR FORCE STATUS AND SEX[1]

PRE-TRAINING LABOUR FORCE STATUS	MALE					FEMALE					TOTAL				
	Total	Graduate No.	Graduate %	Dropout No.	Dropout %	Total	Graduate No.	Graduate %	Dropout No.	Dropout %	Total	Graduate No.	Graduate %	Dropout No.	Dropout %
Employed with Training Firm	229	224	97.8	5	2.2	34	27	79.4	7	20.6	263	251	95.4	12	4.6
Employed Elsewhere	256	226	88.3	30	11.7	62	51	82.3	11	17.7	318	277	87.1	41	12.9
Unemployed	251	181	72.1	70	27.9	113	91	80.5	22	19.5	364	272	74.7	92	25.3
Not in Labour Force	76	52	68.4	24	31.6	183	121	66.1	62	33.9	259	173	66.8	86	33.2
TOTAL	812	683	84.1	129	15.9	392	290	74.0	102	26.0	1,204	973	80.8	231	19.2

1. For 22 graduates and 19 dropouts sufficient information was not available for this classification.

Retention rates followed the same pattern as did the graduation rates. Those trainees who were previously with the training firm had a greater tendency to remain with the training firm after graduation. As shown in Table 15, 83.3 per cent of those graduates who were previously employed with the training firm, remained with the firm, while only 30.1 per cent of those gradutes, who had been outside the labour force prior to training, remained with the training firm.

TABLE 15

PERCENTAGE OF GRADUATES WHO REMAINED WITH TRAINING FIRM BY PRE-TRAINING LABOUR FORCE STATUS AND SEX

Pre-Training Labour Force Status	Male	Female	Total
Employed with Training Firm	88.6	47.1	83.3
Employed Elsewhere	66.4	25.8	58.5
Unemployed	43.4	30.1	39.3
Not in Labour Force	36.8	27.3	30.1
TOTAL	62.1	29.1	51.1

Length of Trainee's Previous Employment

The length of time spent by the trainee in his last job prior to entering a training programme may be another indication of stability and a prediction of success in training. Job-hopping trainees may be less likely to graduate than trainees who have spent a longer period of time in their last job. However, as only the last job before training is examined, it must be realized that this is only an approximate measure of stability.

As shown in Table 16, there is a definite relationship for males but for females it is not well defined. As the length of time spent in the last job increased, the graduation rate

TABLE 16

GRADUATE AND DROPOUT RATES BY LENGTH OF TRAINEE'S PREVIOUS EMPLOYMENT AND SEX[1]

Length of Previous Employment (Weeks)	MALE					FEMALE					TOTAL				
	Total	Graduate No.	Graduate %	Dropout No.	Dropout %	Total	Graduate No.	Graduate %	Dropout No.	Dropout %	Total	Graduate No.	Graduate %	Dropout No.	Dropout %
0 - 14	136	107	78.7	29	21.3	49	40	81.6	9	18.4	185	147	79.5	38	20.5
15 - 26	124	94	75.8	30	24.2	40	30	75.0	10	25.0	164	124	75.6	40	24.4
27 - 52	109	89	81.7	20	18.3	57	46	80.7	11	19.3	166	135	81.3	31	18.7
53 and over	378	349	92.3	29	7.7	105	89	84.8	16	15.2	483	438	90.7	45	9.3
TOTAL	747	639	85.5	108	14.5	251	205	81.7	46	18.3	998	844	84.6	154	15.4

1. For 151 graduates and 96 dropouts sufficient information was not available for this classification.

increased. When comparing retention rates (Table 17), there was very little difference among those who had spent a year or less in their last job, but the rate increased drastically for those with more than a year in their last job. The more time a trainee has spent in his last employment, the more likely he is to graduate from the training course, and also to stay with the training firm. These results would suggest the comparative success of training projects in which the firm's established employees are upgraded as opposed to training projects involving new employees.

TABLE 17

PERCENTAGE OF GRADUATES WHO REMAINED WITH TRAINING FIRM BY LENGTH OF PREVIOUS EMPLOYMENT AND SEX

Length of Previous Employment (Weeks)	Male	Female	Total
0 - 14	45.8	20.0	38.8
15 - 26	46.0	32.5	42.7
27 - 52	53.2	19.3	41.6
53 and over	81.7	41.6	73.3
TOTAL	66.4	31.2	57.8

Length of Unemployment Prior to Training

In this section, the relationship between the length of unemployment prior to training and success in training is reviewed. One would expect that those who were unemployed for a longer period of time would possess those characteristics not appropriate for holding down a regular job and drop out of training. On the other hand, these trainees may be more anxious to obtain steady employment and have higher graduation rates than others. Surprisingly, no relationship was found between these variables for either sex (see Table 18). There was, however, a slight tendency for those with a longer duration of unemployment prior to training to remain with the training firm on the completion of the training programme, although the difference was not substantial (see Table 19).

TABLE 18

GRADUATE AND DROPOUT RATES BY LENGTH OF UNEMPLOYMENT FOR TRAINEES UNEMPLOYED PRIOR TO TRAINING[1]

Length of Unemployment Prior to Training (Weeks)	GRADUATES AND DROPOUTS				
	Total	Graduate		Dropout	
		No.	%	No.	%
1 - 4	149	116	77.9	33	22.1
5 - 14	103	77	74.8	26	25.2
15 and over	102	77	75.5	25	24.5
TOTAL	354	270	76.3	84	23.7

1. For 10 trainees who were unemployed prior to training sufficient information was not available for this classification.

TABLE 19

PERCENTAGE OF GRADUATES WHO REMAINED WITH TRAINING FIRM BY LENGTH OF UNEMPLOYMENT PRIOR TO TRAINING AND SEX

Length of Unemployment Prior to Training (Weeks)	Percentage of Graduates
1 - 4	39.6
5 - 14	39.8
15 and over	42.9
TOTAL	40.7

Characteristics Of Training And The Training Firm

Until now, the analysis has centered on the characteristics of the trainees in on-the-job training programmes; but the characteristics of the training projects themselves may exert an influence on graduation and retention rates. Financial costs to the trainee, the nature of the work, the industry, and finally, the firm involved will enter into a trainee's decision to complete the course or drop out. In the following sub-sections an attempt is made to determine the extent of some of these influences.

Pre-Training Versus Training Wage Rate

It is possible that trainees would drop out of training if there were a financial cost involved. If they were being paid more in their previous job, they may have financial obligations outstanding which they are unable to keep up at the rate of pay they receive in training. Of the 1,245 trainees only 17.8 per cent were earning a lower wage rate during training. Of these, only 25.7 per cent dropped out (see Table 20), which represented only 22.8 per cent of the total number of dropouts. For those who were earning a higher wage rate in training than before training, the dropout rate was 22.1 per cent.

The highest graduation rates, however, occurred among trainees who were receiving the same wage rate during training as prior to training. It is possible that a large proportion of these trainees could already have been with the training firm, that is, they entered into a training programme with their firm at the wage rate they were formerly employed at. Again the relative success of training projects which upgrade established employees is brought out.

TABLE 20

COMPARISON OF PRE-TRAINING AND TRAINING WAGE RATES FOR GRADUATES AND DROPOUTS

Comparison of Rates	Graduates		Dropouts		Total	
	No.	%	No.	%	No.	%
Training < Pre-Training	165	74.3	57	25.7	222	100.0
Training = Pre-Training	219	97.3	6	2.7	225	100.0
Training > Pre-Training	512	77.9	145	22.1	657	100.0
Unknown	99	70.2	42	29.8	141	100.0
TOTAL	995		250		1,245	

There is not sufficient evidence that a lower wage rate during training than prior to training was a significant determinant of graduation rates. However, this does not imply that trainees did not drop out because of financial hardships. The trainee may be experiencing financial pressure even though his training rate is above the rate he received at his previous place of employment.

Dropout and Separation Rates

The dropout rate in training may be a reflection of the separation rate of the industry or of the training firm. The separation rate may give some indication of the type of employees the firm hires, but more imporatant, it may reflect the ability of the firm to attract and retain workers in the labour market. In Table 21, a comparison is made between the dropout rate and the separation rates for industries and firms. With one exception, the clothing industry, there was no relationship between the dropout rate and the separation rate for industries and the same holds true for firm rates. In the case of the firm in the clothing industry, there appears to be a relationship among these rates; the dropout rate was 51.5 per cent and the separation rate was 52 per cent.

Wage Rate Comparison

The wage rate that a trainee would earn elsewhere could also be a significant determinant of whether he graduates or drops out. The offer of employment at a higher wage rate elsewhere could possibly induce the trainee to forego his training. In order to examine this possibility, the starting wage rates for inexperienced persons in the local area of the training project are listed in Table 22. These wage rates are compared with the lowest government-subsidized training rate for each firm. In only one project was the training rate lower than that received by an inexperienced starting worker in that area. In this project, the dropout rate was 19.8 per cent which is below the dropout rate for the sample. This suggests that the attractiveness of higher wage rates elsewhere was not a significant factor in influencing the decision to complete training.

A further test was performed to determine if the training wage rate as compared to the local starting rate had any influence on graduation rates. Using Spearman's Coefficient of Rank Order Correlation, and testing for significance at the 95 per cent confidence level, the correlation between the dropout rate and the training rate-local starting rate differential was calculated. The correlation between these two variables was not significantly different from zero. It is also of interest to examine the relationship between the training rate-local starting rate differential and the firm's separation rate. A correlation here would imply that wage differentials in the community have an influence on labour turnover. Repeating Separman's test, the correlation of training rate-local starting rate differential and the firm's separation rate was found to be significantly different from zero at the 95 per cent level of confidence. One would expect that the results from these two tests would be the same; that is, factors which influenced the separation

rate for the firm would also influence the dropout rate. These results, however, suggest that the dropout rate reflects a wide variety of factors - age, sex, marital status, etc. - so that, while a relationship exists between the differential and the firm's separation rate, the relationship between the differential and the dropout rate is over-ridden by other factors.

TABLE 21

COMPARISON OF FIRMS BY DROPOUT AND SEPARATION RATES

Firm	Dropout Rate	Industry Separation Rate[1]	Firm Separation Rate[2]
1	29.8	6.0	N.A.
2	54.0	6.0	6.50
3	29.3	4.2	N.A.
4	19.8	4.2	N.A.
5	15.0	4.2	N.A.
6	5.0	4.2	25.00
7	27.3	3.8	8.12
8	0.0	4.9	5.00
9	0.0	4.9	13.56
10	10.0	5.4	21.30
11	0.0	5.4	4.00
12	23.5	7.9	10.00
13	6.4	3.8	8.10
14	51.5	6.0	52.00
15	0.0	6.2	N.A.
16	0.0	4.9	4.31

N.A. = Not available

1. From Hiring and Separation Rates in Certain Industries, D.B.S. Cat. No. 72-006. Discontinued August 1966. These figures represent the average monthly separation rate for these industries from September 1965 to August 1966.

   Separations or terminations of employment consist of persons (excluding casuals) whose employment has ended with an establishment and whose names have been removed from the payroll.

2 Based on data collected by the Research Branch, Ontario Department of Labour.

TABLE 22

COMPARISON OF TRAINING RATES WITH LOCAL STARTING RATES

Firms		Training Rate[1]	Local Starting Rate[2]
1		$1.80	$1.50
2		2.24	1.50
3	Male	2.04	1.60
	Female	1.83	1.30
4	Male	1.80	1.40
	Female	1.40	1.00
5	Male	1.15	1.50
	Female	1.15	1.25
6		1.60	1.60
7		1.39	1.25
8	Male	1.70	1.50
	Female	1.70	1.25
9		2.29	2.25
10		2.20	2.20*
11		2.31	2.20*
12		1.85	1.60
13		2.77	2.20*
14		1.25	1.25
15		2.12	1.50
16		2.94	2.20

1. Lowest government subsidized training rate for that firm.

2. Starting rate for inexperienced worker or labourer in the municipality. Obtained from: 1968 Industrial Directory of Municipal Data, Field Services Section, Industrial Development Branch, Ontario Department of Trade and Development.

* No municipal data available. Rate used was that of "general labourer" in Toronto from Wage Rates, Salaries and Hours of Labour, Economics and Research Branch, Canada Department of Labour, Ottawa 1967.

COMPARISON OF RESULTS FROM ONTARIO AND UNITED STATES STUDIES

In this section, a comparison is made between the findings just presented with those from studies of manpower training projects in the United States. Exact comparisons are impossible to make, however, due to the differing circumstances under which training projects in the two jurisdictions were carried out. These differences will be brought out in the following discussion.

The majority of United States' projects reviewed fell under either the Area Redevelopment Act (1961) or the Manpower Development Training Act (1962). The Area Redevelopment Act provided up to sixteen weeks of training for unemployed and under-employed workers in depressed areas, and paid them an amount equal to the average unemployment compensation during the period of their government-sponsored courses. Under the Manpower Development Training Act, unemployed and under-employed workers likewise received a weekly allowance equivalent to unemployment compensation. Workers in all areas were eligible and the duration of training could be extended up to fifty-two weeks. Additional payments could be made when required by the trainee's educational background and financial position. In the studies conducted of training programmes under these two pieces of legislation, all training was done in the classroom, whereas in Ontario, the training consisted of both "vestibule" and "shop" sections.

Basically, the findings of the United States' studies do not parallel those presented in this analysis of the Ontario experience. Training success in Ontario was linked to those trainee characteristics that exemplified stability, whereas in the United States' studies the same characteristics among trainees resulted in higher dropout rates. The type of trainee who was most likely to graduate from an Ontario training project - that is, an older male trainee, married with dependents - was most likely to drop out in the United States' projects.

In citing specific United States studies, it can be shown that trainees with the responsibility of providing for others had higher dropout rates. Ferman and Harvey in a study of retraining in Michigan, found that males were more likely to drop out of training than females.[10] Sigmund Nosow also discovered higher completion rates for females.[11] Since marriage has a stabilizing influence on a person, it was found to be highly related to the successful completion of training in Ontario. However, this was

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10. Louis A. Ferman and Scott Harvey, "Job Retraining in Michigan", in Retraining the Unemployed, Gerald G. Somers (ed.),(University of Wisconsin Press),1968, p.236.

11. Nosow, op. cit., p. 4 (10).

not the case in the United States' studies. Weber[12] and Ferman and Harvey[13] found that the primary wage earner in a family was more likely to drop out of a training project than a secondary wage earner. Also, the more dependents a trainee had, the more likely he was to drop out.[14] In Ontario, the level of education had no determining influence on success in training. These findings were supported by Nosow,[15] Solie[16] and Weber.[17] However, both Ferman and Harvey[18] and Gibbard and Somers[19] found that graduates had a higher level of education than did dropouts.

It would appear that the differences in results between the two jurisdictions can, in part, be traced to the fact that there was greater financial pressure on the United States' trainees. Financial assistance in United States training projects was low, while Ontario trainees were being paid industry rates and had little, or no, opportunity costs.[20] The lower level assistance provided under the United States' programmes resulted in a high dropout rate for those trainees with greater responsibilities. In fact, Weber noticed in his study of retraining in Chicago that where trainees received better financial assistance, the dropout rate was lower.[21] These trainees did not jeopardize

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12. Arnold R. Weber, "Experiments in Retraining: A Comparative Study", in Retraining the Unemployed, Gerald G. Somers, (ed), (University of Winsconsin Press), 1968, p. 273.

13. Ferman and Harvey, op. cit., p. 239.

14. Ibid, p. 238

15. Nosow, op. cit., p. 7 (4).

16. Richard J. Solie, "Employment Effects of Retraining the Unemployed", Industrial and Labour Relations Review, Vol. 21, No. 2, January 1968, pp. 210-225.

17. Weber, op. cit., p. 272

18. Ferman and Harvey, op. cit., p. 236

19. Gibbard and Somers, op. cit., pp. 44-46.

20. In Gibbard and Somers, op. cit., p. 22, trainees in the ARA programme in West Virginia received training subsistence equal to the average unemployment compensation payments in that state, which amounted to $23 per week.

21. Weber, op. cit., p. 27

their welfare payments position when undertaking training. It should be pointed out that, these results do not suggest that trainees in Ontario were not under financial pressure while in training. All that can be concluded is that since they were being paid industry wage rates while in training, the financial pressure on them was less than on the United States' trainees.

SUMMARY AND CONCLUSIONS

From the training projects reviewed in this report, trainees were more successful if they were primarily older, married male trainees with dependents. Trainees with these characteristics had higher completion rates than did other trainees, and also had higher retention rates upon completion of training. Since these trainees have a responsibility for the welfare of others, success in the training programme was more important to them. Also, males were more likely to complete the training programme than females for two main reasons. First, male trainees were, in general, older than the female trainees. Second, male trainees have a more permanent attachment to the labour force than female trainees.

When reviewing other trainee characteristics, it was found that previous labour force experience was also significant in determining trainee success. Trainees who were employed with the training firm prior to training had substantially higher graduation and retention rates than those who were either unemployed or not in the labour force before training. The length of time a trainee spent in his job previous to training was found to have a direct relationship to training success, but this applied to males only. No relationship was found between the length of unemployment prior to training and success in training.

From an analysis of the wage rates during training, there was not sufficient evidence that trainees dropped out of training to accept higher wage rates elsewhere. Only one out of every four trainees who was receiving a lower rate of pay during training than before training dropped out. This represented only 22.8 per cent of total dropouts. Also, in only one case was the local starting rate for inexperienced workers higher than the training wage rate.

It appears that the most significant difference between the projects examined in the United States studies and the projects selected in Ontario's on-the-job training programme

was the financial assistance received by the trainee. The financial pressure was not as great on the Ontario trainees, who were being paid industry rates while in training. As a result, those trainees in Ontario with characteristics that exemplified stability were more successful than trainees with similar characteristics in the United States. The higher take-home pay of the Ontario trainees would enable them to better provide for their family responsibilities.

Due to the data limitations mentioned earlier, the results of this study should not be generalized to the total on-the-job training programme in Ontario. However, the results parallel what one would expect from observing labour force participation behaviour, and suggest that further research in this area is warranted. If, as a result of further studies, the conclusions reached here are confirmed, then certain implications can be brought out. It is of some interest to review these implications here.

The findings presented in this study may have a bearing on the relationship between trainee-selection criteria and programme objective. The Canada Department of Manpower and Immigration has stated that "the primary concern of manpower policy is to facilitate the economic growth of Canada by endeavouring to ensure that the supply of manpower matches the demand qualitatively, quantitatively and geographically.[22] This implies that the main objective attached to Canada's manpower programme is to promote economic efficiency and growth through optimal resource allocation. An economic objective will permit manpower policies to complement the broad monetary and fiscal measures being used to attain the goals set down by the Economic Council of Canada. These goals are as follows: economic growth, price stability, high levels of employment, a viable balance of payments and an equitable distribution of income.

Manpower programmes may also have social rather than economic objectives. This would involve programmes aimed at helping the disadvantaged, the unskilled, and other groups that comprise the hardcore unemployed. Programmes slanted in this direction would also help in bringing about a more equitable distribution of income, one of the goals set down by the Economic Council of Canada. Further, by providing the unemployed with work, the economy is also achieving a better utilization of its resources.

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22. Canada Department of Manpower and Immigration, Annual Report, 1968-1969, Queen's Printer, Ottawa, p. 3.

In the undertaking of a manpower training programme, several conflicts may arise in trying to satisfy these two alternative objectives. For example, the discussion on the personal characteristics of graduates and dropouts revealed that males had substantially higher graduation and retention rates than females. Therefore, from an economic point of view, it would appear logical to concentrate training efforts on males due to the higher probability that they will complete the training course. However, even though on economic grounds alone, one might conclude women should not be trained, social considerations dictate that they should be trained. It is unreasonable to expect all women to anticipate their future availability for work as marriage, pregnancy, child care and other domestic responsibilities cannot always be foreseen.[23] Also, many women who leave the labour force after training may re-enter at a later date, and at that time, make use of their training skills. Finally, the demand for labour may be such in certain localities that women workers need to receive training.

Similarly, a decision has to be made whether to train younger or older workers. Older workers have higher graduation and retention rates, but younger workers have a longer working life ahead of them. The benefits that younger workers receive from training will multiply throughout their working lives. On the other hand, skills do become obsolete and since older workers find it harder to adapt to change, possibly they should be the prime recipients of training.

Other characteristics that typify stability, that is, marriage and having dependents, are also influential in the trainee's success. In this instance there is no conflict between objectives. Both from an economic and a social viewpoint it is advisable to train those persons with the responsibility of providing for someone else.

Also, from the limited evidence presented in this study, there appears to be no conflict between objectives when reviewing the level of education criteria. If the educational level of the trainee makes no difference to the likelihood that he will complete training, it follows that training should be aimed at those persons most in need of training - that is, those with a lower level of education. These are the people that have more difficulty in finding and keeping jobs and,therefore, in earning a decent standard of living. If the level of education makes no difference to success in training, then training the less educated would also be more beneficial to the individual employer. The fact that these workers are

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23. For a discussion of why women should be retrained, see Gibbard and Somers, op. cit., pp. 77-79.

less mobile and have fewer alternative job opportunities would mean that the employer has less chance of losing part of his investment. Thus, in this instance where there is no conflict between efficiency and enquiry criteria, it makes sense to train those who need it most.

It is socially desirable to train the unemployed and various external benefits can be gained from concentrating training efforts on this section of the labour force. A look at the effect that the length of unemployment prior to training has on success in training may help in determining whether there is any conflict between an economic and a social rationale; that is, whether the hard-core unemployed or those recently unemployed should be the prime recipients of manpower training. In this study, no relationship was found between the length of unemployment prior to training and success in training for either sex and, accordingly, no conflict regarding rationales. Therefore, it would be most advantageous to train the hard-core unemployed, those most in need of training.

The criteria of success on which the conclusions arrived at in this report were based is graduation from a training project. As mentioned earlier, there are numerous other methods in which to determine success. If another criteria of success is employed, the conclusions reached in this report may not be substantiated.