

SOME PERSONAL ASPECTS OF EMPLOYABILITY

by

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UNEMPLOYABLE

Crude, rude, crass and vicious,
 Crazed, perhaps, and lazy,
 Here, near, he is standing
 Haggard, wan, and ragged.
 Scarr'd, hard, scanning darkly,
 Scowling at us foully,
 See, he, soured and bitter,
 Seeks to damn our sleekness.
 Want, gaunt, wastes him, thinking
 Work was made for shirking:
 "Well, hell! Wolfish masters
 Wear a man and tear him!"

Whose - choose! - whence this evil?
 Why this human vileness?
 We? - He? - Will one venture
 Weight of blame to state here?
 Shame's claim - shall we share it?
 Shoulder failures boldly?
 Flung, young, flawed but manlike,
 Flesh on labor's threshold,
 Taught naught, tossed aside, when
 Tides of trade are idle -
 Dust, rust, dull his spirit,
 Dare not judgment spare him?

Watson Kirkconnell.¹

1 Kirkconnell, Watson.

The Tide of Life and Other Poems.

Ottawa: Ariston Publishers Limited, 1930, p. 62.

PREFACE

I would like to take this opportunity to thank the numerous individuals who assisted in the preparation of this thesis. In particular, I wish to make an acknowledgement to Professor H. Michell of McMaster University under whose able and painstaking guidance this work was conducted. In addition, my gratitude goes to Mr. G. P. Weir, Manager of the Hamilton Office of the Unemployment Insurance Commission, for the many privileges that he extended to me. Moreover, I am deeply indebted to Mr. K. J. Cox, Head of the Special Placements Section, for his keen interest, valuable assistance and timely suggestions.

H. D. Warner.

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CHAPTER I

THE NATURE OF EMPLOYABILITY

When every human being discovers that he is useful and wanted, it is a great thing. Paradoxical as it may appear, the war has brought this blessing to Canada by forcing Canadians to be more efficient. Thus, increased production has come about by the full mobilization of both population and resources.

Unfortunately, Canada was ill-equipped to undertake this enormous task. Unlike Great Britain and the United States, no national employment exchanges existed prior to the war. Not until 1941, did a nation-wide employment office come into being under the Unemployment Insurance Commission. This lack of experience, tradition, skilled staffs and machinery necessitated a slowly evolving organization. Three phases of development can be distinguished.

The first period began with a large volume of unemployment and much unused or idle resources and capital equipment. Men were recruited for both the armed services and expanding industries without creating a scarcity of labour. It was not long, however, until acute shortages developed which were accompanied by hoarding of scarce labour, machinery and materials. "Poaching" and "pirating"

were not uncommon and, generally, the high labour turnover hindered efficient production.

The second phase was characterized by partial regulation. In 1940, a National Registration was conducted. Up to the end of 1941, various measures were adopted to improve the distribution of manpower, for example: employers were forbidden to solicit workers already engaged in war industries, the government defrayed the expenses of men moving from one locality to another, and wages and salaries were stabilized.

The final stage of compulsory regulation was instigated when these controls became inadequate to meet the increasing demands for labour. The administration of all manpower measures were centralized under the Minister of Labour. By means of the National Selective Service Regulations, 1942, together with subsequent amendments and orders, a broad and comprehensive program of positive control over the demand and supply of labour has been achieved. Consequently, neither employees or employers can advertise for jobs, terminate employment without seven days notice, seek or offer employment without permission. Non-essential or low priority industries have been forced to give up its male employees between the ages of 16 and 40, and persons engaged in high priority occupations have been frozen to their jobs. (12)

Strangely enough, as the supply of able workers became exhausted and industry started to use impaired individuals, handicapped persons began to apply voluntarily for employment. Thus a vast untapped reserve of manpower was released, to the benefit of the industry that employed them, of the disabled individual himself, and of the nation as a whole.

The government has been motivated throughout by two aims. On the one hand, every person who is able to work must undertake some form of essential service in the armed forces, in war production, or in a vital civilian activity. On the other hand, every person must be placed in the position where his or her individual ability and training may be used to the best advantage.

The National Selective Service Civilian Regulations, which, in part, require unemployed persons to accept suitable employment, illustrate that the latter task of selection and placement is by far the more difficult and complicated. "In deciding whether employment is suitable for a person, a Selective Service Officer shall consider such factors as he deems relevant including the person's physical condition, training, experience, prior earnings and personal responsibilities and the distance of the employment from his residence; and he shall not consider employment to be suitable if the wages are lower, or the

conditions of work are less favourable, than either those fixed by collective agreement for the place where the work is to be performed or, if there is no such agreement, those observed by good employers." (15) Two very difficult problems arise in the practical application of this ruling. First, what constitutes employability? In other words, what can this particular man do, who is impaired by a weak heart and poor eye-sight, having only a public school education? Or, what types of work can an epileptic be expected to perform? Secondly, upon whom falls the tremendous responsibility of determining when a man is unemployable?

In order that the difficulty of defining employability may be perceived in its proper perspective, a brief examination of the larger and encompassing problem of unemployment is set forth. Unfortunately, the concept of unemployment cannot be defined. In its scope, it embodies a multiplicity of economic ideas. In fact, indefinite interpretations are the only medium through which it can be analyzed, and even these must be construed in terms of the social consciousness at a given time, and moulded according to the uses to which they are intended. (8)

It is usual to think of the causes of unemployment under two captions that are customarily used to depict the situation in any market. On the one hand, there is

the demand for labour, which is shown by the employer's desire to buy the services of men. On the other hand is the supply of labour, which is signified by the worker's willingness to sell his services. A casual examination of the factors affecting the demand and supply of labour not only illustrates the impossibility of finding an adequate definition of unemployment, but it also reveals the vague and complex nature of employability itself. Let us first turn out attention therefore to the causes of unemployment which are quite remote from the worker.

Seasonal variations in the demand for labour are a prime cause of much temporary unemployment. For instance, the rainy day that keeps the brick layer off the job is the very one on which the umbrella man does the most work. Hence the weather limits a man's chances of continued employment. Likewise, strikes, lockouts, break-downs and short supplies confront the worker at irregular and unexpected times. While these disorders are not important to the nation as a whole, they are extremely vital to the individual who, even for a short period, finds himself unemployed.

Then again, certain industries are forced to produce spasmodically. Farming and construction are characteristic of this group. Consequently, manufacturers who supply commodities to those engaged in them find that the

demand for their product varies in a regular pattern throughout the year. Similarly, the producers of soft drinks, ice cream and confectionery are forced to manage their output to coincide with the seasons. While this group is absolutely helpless in any attempt to distribute their output throughout the year, it is usually a relatively simple task for a fertilizer firm or the manufacturer of construction tools to forecast the coming demand and thus limit the amount of seasonal unemployment.

The origin of some seasonal fluctuations are due to current fads and fashions, and usually these are closely related to the seasons. Man's desire for ostentation leads him to buy a new automobile or hat at a certain time of the year. Generally speaking, industries producing consumers' goods tend to show high seasonal variations. Although the weather is the source of most of the seasonal fluctuations, it cannot be held responsible for all movements. Moreover the total volume of unemployment is not clearly affected because the slack periods fail to coincide. Nevertheless, a man is temporarily unemployable. (6, p.73ff.)

Under still other circumstances the period of unemployment is of greater duration. Many industries are characterized by a rhythmic, wave-like succession of greater and less activity. Since these periods of

recession and prosperity run almost concurrent in the various lines of production, it is assumed that they are not only interrelated but spring also from a common source. The primary industries are not influenced seriously by seasonal fluctuations, it is true; but they are affected severely by these cyclical movements. Whatever their cause, the effect of their activity cannot go unnoticed. By producing mass unemployment on unheard of scales, they have become the greatest threat to our modern society.

The introduction of machinery and new methods of production is generally hailed with enthusiasm. Here again the long run picture shows us that society as a whole benefits from these advancements. (6, p.141) But one cannot over-look Dr. Bakke's testimony in connection with his Greenwich survey. "It is very difficult for a man whose training has proved of little value, because a machine can do what he has been trained to do more quickly and efficiently than he can, to convince himself that, as a member of society, he will ultimately profit by the greater production made possible by the machine which has displaced him." (3, p.4) Although the majority of such men thrown out of work by a machine will after a short period of unemployment obtain work again, it is doubtful whether they will ever be successful in gaining

employment at work which will suit them as adequately or in which they will be as successful.

The statement that, "Of all kinds of luggage, man is the most difficult to be transported", is just as true to-day as it was when it slipped from the pen of Adam Smith. Just as man becomes attached to a certain group of friends, so also do the other factors of production become inextricably bound up with a certain set of associations. The immobility of the factors of production is a serious cause of unemployment, and yet it is just another over which the individual worker has no control.

Another factor which deserves consideration is found inherent in our economy. For instance, if we lived in a purely competitive society, we would find that output and employment would remain fairly constant for short periods of time, while prices would fluctuate in relation to the demand. On the other hand, in a purely monopolistic society, prices would tend to be stable while output and employment would vary. As we have the dubious good fortune to live in a world where there prevails a mixture of these pure types, we experience the benefits and shortcomings of both. Thus all three: prices, output and employment, are in a constant state of flux. (5, pp.623-4)

In addition to these purely economic factors which

determine a man's opportunity of finding and retaining employment, there are some social factors that cannot be overlooked. Certain conventions of society, although they are deep seated, are usually without logical justification; for instance, the refusal of white workers to work at a job on which a negro is employed. Then again, differences in their ethnic group will prevent some men from accepting employment in the company of immigrant labourers. Differences in religious beliefs, sanctioned sometimes by trade unions will prevent, for example, a Jew from working with Catholics.

Another source of unemployment over which the individual has little or no control is found, strangely enough, in trade union policy. The 'strike' furnishes all concerned with a temporary form of unemployment if nothing else. To this must be added the 'closed shop' as a serious deterrent to non-union men. Although a feeling of freedom and a spirit of individualism may be the cause of non-membership in some cases, there are other instances when a new member will not be admitted until old members have received employment. This practice is especially true in trades where apprenticeship is a prerequisite.

One further example will suffice to show that some causes of unemployment may be found in remote and

unexpected quarters. The social legislation intended to improve the lot of the working man can simultaneously throw others permanently out of work. In this respect, laws concerning the minimum wages to be paid or the maximum number of hours to be worked have a common effect upon the marginal worker who is unable to keep up with the increased pace demanded of him. The speeding up which is the inevitable result of such legislation results in an increase in absenteeism. Other forms of legislation, such as child labour laws, define the status of children as unemployable. Yet again, differences in standards between one province and another will determine the location that a new firm will choose, or will encourage a company to move to a place where the standards are not as high. These facts cannot be over-looked when one is searching out the causes of unemployment in any particular region. It is not that these laws in themselves are not beneficial; rather it is that the employability of the individual is affected by them.

For the most part, the conditions of demand are determined by factors which are quite remote from the worker. They depict the state of economic activity and the conventions of society. Let us now turn our attention to those factors which can be intimately associated with the individual. The supply side sums up a man's ability

to serve and his willingness to sell his services.

Age is perhaps the greatest single factor that affects employment. Indeed it is becoming an even greater factor to be reckoned with. As long as the Canadian birth rate continues to decrease, there will be an increasing disproportion of older workers. In 1941, about 6.5 percent of the population was composed of men and women over sixty-five years of age; but by 1971, this group will have grown to the alarming size of over 9.4 percent, while the middle group remains fairly constant. (11, p.68) Obviously, either the people over sixty-five will have to work longer, or else the productivity of all workers will have to be increased. While there is little doubt about the possibility of great technological developments in the future, there is considerable misapprehension concerning the possibility of men and women over the age of sixty-five years being able to work at their accustomed tasks.

It is generally assumed that the age, at which the ability to carry out useful employment begins to diminish, is in the vicinity of 65 - 70 for the men and between 60 - 65 for the women. (11, p.68) If anything, this estimate is too high, as will be indicated later.

Of course, the very young are to be considered as unemployable. Just at what age a youth can be expected

to be capable of work is difficult to determine. But, in Canada, child labour laws partially solve this problem, as Canadians believe that it is imperative that the children be trained and educated to take their place in society. For all practical purposes, therefore, a person must be at least 16 years of age and not past 65 years of age if he wishes to offer his services in the labour market.

The physically impaired worker tends to be thought of second to the problem of age when one is considering the supply factors of labour. The physical handicapped include all those with any physical deficiency, peculiarity or impairment which presents a problem in placement. (17)

These physical defects may be classified as apparent or non-apparent. For instance, a short stature, an amputation, a deformity, a paralytic condition, or a lack of sight is immediately noticed by the employer. Such hidden defects as tuberculosis, heart disease, stomach trouble, or hernia may be only detected by a physical examination. Even if these groups are not complicated by psychological inhibitions, these individuals offer their services to a very limited market. The pre-employment medicals of many large companies curtail considerably the number of opportunities which are open to the physically disabled.

Moreover, there is a deep-rooted prejudice entertained by employers concerning the productive capacity of handicapped persons. They are condemned on the false assumptions that physical appearance and physical performance go hand in hand. This ill-begotten theory fails to consider that through self-repair, adaptation to individual conditions and training of otherwise unused faculties, the worker may continue to perform efficiently. In fact, Dr. Kessler, of the New Jersey Rehabilitation Clinic suggests that a person normally uses only 10 percent of his potential efficiency. There lies submerged for use in an emergency 90 percent of his physical powers. It is not unusual that the disabled worker even excels the more able-bodied as his physical defect may act as a stimulus for extra-ordinary physical activity. Moreover his attitude towards his work may be far more loyal as he feels that he must be more efficient than the normal man. (7)

However, many physical handicaps are definitely disabling. Sometimes, true enough, it may be due to the worker's inability to train his latent potentialities, often, on the other hand, his condition is such that he can only seek employment under circumstances which are favourable to his physical defect, for example: Tuberculosis.

One must not overlook the effect of overwork on non-apparent disabilities. The man with a bad heart will be called on to give a hand when the chap with an artificial leg will not. This extra exertion tends to shorten the working days of such individuals. (16)

It will be seen that the physically impaired worker not only has great difficulty in obtaining employment, but once he has gained it he experiences hardships in order to keep his job also. Even though employment is a great boost to his morale it must be coordinated carefully with his personal limitations. The problem of finding suitable employment can only be solved by a twofold detailed analysis, on the one side, of the potentialities of the individual, and on the other, of the requirements of the job.

Another factor that affects the supply of labour is the mental condition or attitude of the worker. While there are certain diseases such as Dementia-praecox and Paranoia when combined with advanced age can only mean unemployability, there are many less serious disorders that allow a man periods of lucidity in which he is an extremely good worker. The big difficulty is that these people are not reliable. Fortunately, the public is resigned to the task of caring for the more serious cases, giving them whatever work they can do in an attempt to correct their affliction.

However, there are many cases of neuronal disorder, disintegration and insufficiency which need never enter a hospital. They range from such serious maladies as Epilepsy to lesser disorders such as Phobia and even to Nervousness. These impairments diminish seriously the capability of the worker. The man that is so afflicted has less to offer the employer. He cannot compete on equal grounds with the able-bodied.

Then, there are those whose attitude is summed up in the favourite phrase of the great depression: "The world owes me a living". These are the chronic indigents, composed mainly of young men who have never been able to find work when they had the desire, and later, when work was available, they neither knew how to work, nor cared to be employed. Into this class falls the vagrant and the hobo, who, by begging a few hours a day, receive enough to obtain a meagre existence. As Dr. Marsh points out these men will still be with us after a prolonged period of recovery or reconstruction. They are in fact the product of society, because they developed their philosophy towards life during a time when society would not provide them with employment. (9, p.369; 10, p.123)

There are many other items which affect a man's ability and willingness to sell his services. For example, the great influx of women into practically all occupations

during recent years has greatly changed the degree and type of competition encountered. Then again, the educational background of the worker is extremely important, as his skill, or lack of it, appreciably affects his chances of obtaining employment. Nor can his previous work record and his general appearance be overlooked.

Even by a cursory examination of a few factors affecting the demand and supply of labour such as the foregoing, one realizes that unemployment is an all-embracing term embodying a multitude of interrelated causes. For this reason those attempting to buy or sell services in the labour market are not faced with any one factor of supply and demand. Rather they are literally bombarded with hundreds of them. When an employer hires a man who has signified his willingness to work for him, somewhere, somehow, all these complex interdependent factors have been satisfactorily integrated. At that moment, when the worker has been hired, employability has been established.¹

Should a normal person find the conditions of the

¹ This use of the term is strictly in keeping with the conclusions of many careful students of unemployment. Sir William Beveridge points out that employability of a man depends entirely upon the work that has to be done. (4, p.135) Dr. Nixon concludes that it can only be used in a relative sense. (14, p.240ff.) Dr. Marsh emphasizes the fact that the vagueness can be disposed of by the objective test of a job. (11, p.50)

job somewhat different from what he had anticipated, he can either adapt himself readily to this environment, or seek employment elsewhere, just as easily. Unfortunately, the handicapped individual is not in such a favourable position. The requirements of the job and his own potentialities must closely coincide. Naturally, this limits the number of opportunities that are open to him very appreciably. While failure to define employability accurately in the case of the able-bodied person has no serious consequence, such a shortcoming for the impaired person may on the one hand, aggravate his disability if he tries to do the job, or on the other, raise his hopes for no reason with consequent injury to his morale.

For many years now, Canadians have been attempting to help the disabled cross the barrier of the labour market in order that they may obtain their "right to work". After the last war a vocational rehabilitation scheme was set up for the benefit of returned men. Previously, in Ontario, the Workmen's Compensation Board had been established, and at present, a complete integration of surgery, therapy, compensation and vocational rehabilitation is serving those injured in industry. (2) Other services of which the Hamilton Association of Occupational Therapy is an example attempt to reach persons who cannot claim

benefits under the schemes wholly sponsored by the government. The rehabilitation that is offered by these various agencies is of a twofold nature. First, it consists of either the removal of a physical disability, or retraining which will return the individual to his former productive capacity. Secondly, it involves vocational counselling which establishes or restores the social, moral and mental status of the handicapped so that he may successfully gain employment. (1) Recently, the National Selective Service, by setting up a Special Placements Section, has also done much to breach the gap between the job and the disabled worker.

All these agencies, when they are attempting to place their cases, must find the job that requires the specific capabilities and aptitudes of the applicant, who has a special physical impairment, and who is influenced by a mental outlook that has been conditioned by past experience. The placement officer must sum up all the factors that created the demand for labour power on that particular job, and against this he must balance the capacity, ability and outlook of the individual. He must accomplish what appears to be the impossible: a definition of employability.

BIBLIOGRAPHY

Chapter I

- (1) Amos, Jack L.
Vocational Rehabilitation; A Comparison of
 Programs for the Physically Handicapped.
 Unpublished M.A. Thesis, University of
 Toronto, 1942.

- (2) Amos, J. L.
"Vocational Rehabilitation During and After the
 War". The Canadian Journal of Economics and
 Political Science.
 Vol. IX, No. 2, (May 1943) pp.164-174.

- (3) Bakke, E. Wight
The Unemployed Man.
 London: Nisbet and Company Ltd., 1933, 308 p.

- (4) Beveridge, W. H.
Unemployment, A Problem of Industry, (1909 and
 1930)
 London: Longmans, Green and Co. 1930, 514 p.

- (5) Boulding, Kenneth E.
Economic Analysis.
 New York: Harper and Brothers Publishers, 1941,
 809 p.

- (6) Douglas, Paul H. and Director, Aaron.
The Problem of Unemployment.
 New York: The Macmillan Company, 1931, 505 p.

- (7) Kessler, Henry H.
"The Employability of the Handicapped".
 Proceedings, National Conference on Employment
 of the Disabled.
 Washington, D. C.: National Rehabilitation
 Association, 1941, pp. 73-76.

- (8) Long, Clarence D.
"The Concept of Unemployment". The Quarterly Journal of Economics.
 Vol. LVII, No. 1, (Nov. 1942) pp. 1-30.

- (9) Marsh, Leonard C.
Canadians In and Out of Work, McGill Social Research Series No. 9.
 Toronto: Oxford University Press, 1940, 503 p.

- (10) Marsh, Leonard C.
Health and Unemployment, McGill Social Research Series No. 7.
 Toronto: Oxford University Press, 1938, 243 p.

- (11) Marsh, Leonard C.
Report on Social Security for Canada, Special Committee on Social Security, Advisory Committee on Reconstruction.
 Ottawa: King's Printer, 1943, 145 p.

- (12) Martin, Paul.
"Canada's Manpower Policy", University of Toronto Quarterly.
 Vol. XIII, No. 2. (Jan. 1944), pp. 196-206.

- (13) Mc Vety, J. H.
"Who are the Unemployables?" Proceedings of the Sixth Canadian Conference on Social Work.
 1938, p.144.

- (14) Nixon, R. A.
The Problem of Employability.
 An unpublished Ph. D. Thesis, Harvard University.
 April, 1940. 365 p.

- (15) Order In Council
"The National Selective Service Civilian Regulations". Canadian War Orders and Regulations,
 Vol. I, No. 4, Extract, Ottawa, February 1, 1943.
 p. 8, para. 209, sec. 4. P.C. 246, (Jan. 19, 1943)

- (16) Tyrrell, W. G.
Interview. Veteran's Welfare Office,
Hamilton.
Dept. of Pensions and National Health.
- (17) Zimmer, Verne A.
"Employment Handicaps of the Physically
Disabled Worker", Proceedings, National Con-
ference on Employment of the Disabled.
Washington, D. C.: National Rehabilitation
Association, 1941, pp.53-56.

CHAPTER II

THE PRACTICAL DEFINITION

It is quite evident that the complex, inter-related factors which constitute employability are so numerous that a complete definition is impossible. However, the government has established machinery to control the demand and supply of labour in order that full production for the war effort may be obtained. This, in turn, creates the need for a practical definition concerning the employability of the individual worker. It is interesting to see how this practical definition may be obtained.

An examination of the various forms that are used by the Employment and Selective Service Offices illustrates clearly the necessity for marshalling the many complicated factors comprising employability. From the outset, it must be borne in mind that a man cannot seek work nor can an employer interview or employ a man without the written permission of the National Selective Service. Upon applying to the local office for permission to seek work, Form No. I is filled out and filed. It will be noticed that this card gathers together information that is necessary if the employment possibilities and limitations of the applicant are to be determined.

The applicant is issued with Form No. II which certifies that he has been registered.

When an employer is desirous of obtaining additional labour he files Form No. III with the local office. The information supplied on this card attempts to describe what will be required of the new employee.

If the applicant is willing to accept the work, assuming that he has the qualifications for the position, he is given permission to seek and accept employment with that firm. Such permission is given on Form No. IV.

In the event that no company has placed an order for an employee with the qualifications of this particular man, and all probable sources of employment have been checked by the Employment Officer, he will be issued with Form No. V which allows him to seek but not to accept employment. This gives the Selective Service Officer the opportunity of restricting the man's search to a particular industry, area or length of time as the need may arise. When he has been successful in his search, he is issued with Form No. IV which gives the firm permission to hire him.

Should an employee wish to leave his employer or should his employer not longer require or desire his services, Form No. VI must be filled out if the firm is one of a list of designated establishments which have a special

A1248181

A. NAME
NOM

(LAST NAME - NOM DE FAMILLE)

(PRINT BLOCK LETTERS) (EN LETTRE MOULÉE)

(FIRST NAME(S) - PRÉNOMS)

IS HEREBY PERMITTED UNDER NATIONAL SELECTIVE SERVICE REGULATIONS TO SEEK EMPLOYMENT:
EST PAR LES PRÉSENTES AUTORISÉ, EN VERTU DES RÈGLEMENTS DU SERVICE SÉLECTIF NATIONAL,
À CHERCHER:

IN OCCUPATION(S)
L'EMPLOI DE

IN (CITY OR DISTRICT)
DANS (VILLE OU DISTRICT)

IN (INDUSTRY)
DANS (INDUSTRIE)

NAME OF ISSUING OFFICE
BUREAU D'ÉMISSION

DATE OF ISSUE
DATE D'ÉMISSION

SIGNATURE OF NATIONAL SELECTIVE SERVICE OFFICER
SIGNATURE DU FONCTIONNAIRE DU SERVICE SÉLECTIF NATIONAL

B. AN EMPLOYER AS DESCRIBED IN "A" IS HEREBY AUTHORIZED TO ENGAGE THE PERSON NAMED IN THIS PERMIT AT THE OCCUPATION(S) SPECIFIED. IF THE PERSON IS ENGAGED, THE EMPLOYER MUST COMPLETE CERTIFICATE "C" BELOW, RETAIN YELLOW COPY OF THIS FORM, AND SEND THE OTHER TO THE NATIONAL SELECTIVE SERVICE OFFICE NAMED ABOVE WITHIN 48 HOURS.
UN EMPLOYEUR TEL QUE DÉCRIT EN "A" EST PAR LES PRÉSENTES AUTORISÉ À EMBAUCHER LA PERSONNE INDIQUÉE DANS CE PERMIS POUR L'OCCUPATION SPÉCIFIÉE. SI LA PERSONNE EST EMBAUCHÉE, L'EMPLOYEUR DOIT COMPLÉTER LE CERTIFICAT "C" CI-DESSOUS, GARDER LA COPIE JAUNE DE CETTE FORMULE ET TRANSMETTRE L'AUTRE COPIE AU BUREAU DU SERVICE SÉLECTIF NATIONAL INDIQUÉ CI-DESSUS DANS LES 48 HEURES.

C. THE ABOVE NAMED PERSON HAS BEEN ENGAGED WITHIN THE LIMITS SET FORTH ON THIS FORM.
LA PERSONNE SUSDITE A ÉTÉ EMBAUCHÉE DANS LES BORNES DÉCRITES SUR CETTE FORMULE.

EMPLOYER'S
NAME
NOM DE
L'EMPLOYEUR

DATE OF COMMENCEMENT OF WORK
A COMMENCÉ A TRAVAILLER LE

RATE OF PAY - SALAIRE PAYÉ
\$ PER PAR

ADDRESS
ADRESSE

NSS 122-2500M-9-43
K. P. 89689

SIGNATURE OF EMPLOYER'S REPRESENTATIVE
SIGNATURE DU REPRÉSENTANT DE L'EMPLOYEUR

OVER - VERSO

TELEPHONE NO. NO. DE TÉLÉPHONE

U. I. C. REGISTRATION NO.
NO. D'INSCRIPTION, C. A. C.

HOLDER MAY NOT ENTER
EMPLOYMENT
LE PORTEUR NE PEUT PAS
ÊTRE EMPLOYÉ

BEFORE - AVANT
DAY / MO. / YR. / AN.
/ / /

AFTER - APRÈS
DAY / MO. / YR. / AN.
/ / /

A
B
C
D



CANADA

NATIONAL SELECTIVE SERVICE
SERVICE SÉLECTIF NATIONAL

PERMIT TO SEEK OR ENTER EMPLOYMENT
PERMIS DE CHERCHER OU D'EXERCER UN EMPLOI
EMPLOYER'S COPY - COPIE DE L'EMPLOYEUR

EMPLOYMENT and SELECTIVE SERVICE OFFICE
BUREAU DE PLACEMENT ET DE SERVICE SÉLECTIF

STAMP
3
TIMBRE

VILLE OU CITÉ

TOWN OR CITY

RUE

STREET

FORM NO. 100-100-100-100-100

RECEIVED BY THE NATIONAL SELECTIVE SERVICE OFFICE
DATE OF RECEIPT: 10/10/10

100-100-100-100-100

1. EMPLOYER
2. DATE
3. NAME
4. ADDRESS

1. NAME
2. DATE
3. NAME
4. ADDRESS

1. Should the employer wish to engage the applicant at an occupation other than as shown, he must first secure permission from the National Selective Service Officer. If this permit is restricted to a single employer and the applicant is not engaged, the applicant must return both copies to the Office of Issue.
2. This permit does not in any way affect the applicant's status with regard to compulsory military training in accordance with National War Services Regulations.

1. Au cas où l'employeur désirerait embaucher le postulant pour une occupation autre que celle indiquée, il devra d'abord obtenir la permission du fonctionnaire du Service sélectif national. Si ce permis est limité à un seul employeur et si le postulant n'est pas embauché, ce dernier doit retourner les deux copies au bureau d'émission.
2. Ce permis ne modifie en rien la situation du postulant à l'égard de l'instruction militaire obligatoire conformément à la réglementation relative aux Services nationaux de guerre.

1. EMPLOYER
2. DATE
3. NAME
4. ADDRESS

1. NAME
2. DATE
3. NAME
4. ADDRESS

1. NAME
2. DATE
3. NAME
4. ADDRESS

1. NAME
2. DATE
3. NAME
4. ADDRESS

100-100-100-100-100

100-100-100-100-100

Form No. III
Form No. III

Form No. IV

NATIONAL SELECTIVE SERVICE
AUTHORITY TO SEEK EMPLOYMENT

SERVICE SÉLECTIF NATIONAL
AUTORISATION DE CHERCHER DE L'EMPLOI

A	NAME NOM		
	ADDRESS ADRESSE		
	IS HEREBY AUTHORIZED TO SEEK BUT NOT ACCEPT EMPLOYMENT AT THE FOLLOWING: EST PAR LES PRÉSENTES AUTORISÉ(E) À CHERCHER MAIS NON PAS À ACCEPTER DE L'EMPLOI DANS:		
	OCCUPATION(S)	INDUSTRY - INDUSTRIE	
	IN (CITY OR DISTRICT) VILLE OU DISTRICT		
B	OFFICE OF ISSUE BUREAU ÉMETTEUR	DATE OF ISSUE DATE DE L'ÉMISSION	NOT VALID AFTER NON VALABLE APRÈS
	SIGNATURE OF NATIONAL SELECTIVE OFFICER SIGNATURE DU FONCTIONNAIRE DU SERVICE SÉLECTIF		
	THIS IS NOT A PERMIT TO ENTER EMPLOYMENT		
	IF THE PERSON DESCRIBED IN A ABOVE SECURES AN OFFER OF EMPLOYMENT, THE PROSPECTIVE EMPLOYER MUST EITHER COMPLETE THE DETAILS REQUIRED BELOW OR SIGNIFY HIS DESIRE TO EMPLOY THE PERSON BY LETTER. THE HOLDER OF THIS AUTHORITY MUST THEN SURRENDER IT PERSONALLY TO THE OFFICE OF ISSUE AND OBTAIN A PERMIT TO ENTER EMPLOYMENT FORM NSS 122.		
	CECI NE CONSTITUE PAS UN PERMIS DE PRENDRE DE L'EMPLOI SI LA PERSONNE DÉCRITE EN A CI-DESSUS REÇOIT UNE OFFRE D'EMPLOI, L'EMPLOYEUR ÉVENTUEL DOIT DONNER LES RENSEIGNEMENTS DEMANDÉS CI-DESSOUS OU SIGNIFIER PAR LETTRE SON DESIR DE PRENDRE LA PERSONNE À SON SERVICE. LE TITULAIRE DE CETTE AUTORISATION DEVRA ALORS LA REMETTRE PERSONNELLEMENT AU BUREAU ÉMETTEUR ET OBTENIR UN PERMIS DE PRENDRE DE L'EMPLOI, FORMULE NSS 122.		
C	I WISH TO ENGAGE THE PERSON NAMED IN A ABOVE AS A JE DÉSIRES EMPLOUER LA PERSONNE NOMMÉE EN A, CI-DESSUS, EN QUALITÉ DE (OCCUPATION)		
	NAME OF FIRM NOM DE LA FIRME		
	ADDRESS ADRESSE		
	SIGNATURE OF EMPLOYER'S REPRESENTATIVE: SIGNATURE DU REPRÉSENTANT DE L'EMPLOYEUR		
	THE COMPLETION OF THIS FORM DOES NOT RELEASE EMPLOYER FROM THE OBLIGATION OF REGISTERING HIS ORDERS WITH THE NATIONAL SELECTIVE SERVICE OFFICE. LE FAIT DE REMPLIR CETTE FORMULE NE LIBÈRE PAS L'EMPLOYEUR DE L'OBLIGATION D'ENREGISTRER SES DEMANDES DE MAIN-D'ŒUVRE AU BUREAU DU SERVICE SÉLECTIF NATIONAL.		

NSS 140—POSSESSION OF THIS FORM DOES NOT GUARANTEE THAT A PERMIT TO ENTER EMPLOYMENT WILL BE ISSUED IN RESPECT OF ANY OFFER OF EMPLOYMENT SECURED.

NSS 140—LA POSSESSION DE CETTE FORMULE NE CONSTITUE PAS UNE GARANTIE QU'UN PERMIS DE PRENDRE DE L'EMPLOI SERA ACCORDÉ POUR AUCUNE OFFRE D'EMPLOI QUI POURRAIT ÊTRE RECUE.

Form No. V

Form No. VI

INSTRUCTIONS RE FORM NSS 120.
NOTICE OF SEPARATION FROM EMPLOYMENT

1. **Disposal of Copies of Forms:** The employee must retain after issue the copy marked "Employee's Copy". The employer must retain the copy marked "Employer's Copy". Within 48 hours of issue the employer must send to the nearest National Selective Service Local Office the copy marked "Copy for National Selective Service".
2. **Provisions of Blank Forms:** An employer must provide any employee on request with a triplicate set of these forms. If the employer has none of the forms in blank, he must immediately procure them for an employee if requested to do so.
3. **Important Provision:** No employer, with the exceptions stated in the order, may discuss or enter into a contract of employment with any person who does not first produce a copy of Form NSS 122 properly certified by a National Selective Service Officer; nor may any person negotiate or accept employment unless he produces for the inspection of a prospective employer a duly certified copy of Form NSS 122, as above referred to. Whereas NSS 120 has been issued to an employee, Form NSS 122 can be secured only on production of the "Employee's Copy" of Form NSS 120, at the National Selective Service Office nearest to the place of employment at which Form NSS 120 was issued.

INSTRUCTIONS SUR LA FORMULE NSS 120.
AVIS DE CESSATION D'EMPLOI

1. **Disposition des copies de la formule:** Après l'émission, l'employé retiendra la copie marquée "Copie de l'employé". L'employeur retiendra la copie marquée "Copie de l'employeur". Dans les 48 heures de l'émission, l'employeur adressera au bureau local du Service sélectif national le plus rapproché la copie marquée "Copie du Service sélectif national".
2. **Provision de formules:** L'employeur doit fournir à tout employé, sur demande, une formule en trois copies. Si l'employeur n'a aucune formule, il devra immédiatement en procurer à l'employé, s'il est requis de le faire.
3. **Dispositions importantes:** Sous réserve des exceptions énoncées dans l'ordonnance, nul employeur ne doit discuter ou passer un contrat de service avec une personne qui ne produit pas une copie de la formule NSS 122 dûment attestée par le fonctionnaire du Service sélectif national; nulle personne ne peut non plus engager des pourparlers, ni accepter de l'emploi, à moins de produire, pour vérification par l'employeur éventuel, une copie de la formule NSS 122 dûment attestée comme susdit. Lorsqu'une formule NSS 120 aura été émise à une employé, la formule NSS 122 ne pourra être obtenue que sur la production de la copie de la formule NSS 120 marquée "Copie de l'employé", au bureau du Service sélectif national le plus rapproché du lieu d'émission de la formule NSS 120.

Form
v11

NSC 120-1500M-9-43

EMPLOYEE EMPLOYÉ	NAME NOM (LAST NAME - NOM DE FAMILLE) (FIRST NAME(S) - PRÉNOMS)		CHECK POINTER (✓)	MALE HOMME FEMALE FEMME
	ADDRESS ADRESSE		DEPARTMENT - DÉPARTEMENT	
	OCCUPATION		PAYROLL NO. - NO. DE FEUILLE DE PAYS CO. PASS NO. - NO. DU LAISSER-PASSER DE LA CIE INSURANCE BOOK OR U. I. C. 413 REGISTRATION NO. NO. DU LIVRE D'ASSURANCE OU DE L'ENREG. U. I. C. 413	
EMPLOYER EMPLOYEUR	NAME NOM		TELEPHONE NO. - NO. DE TÉLÉPHONE	
	ADDRESS ADRESSE			
	CHECK (✓) WHETHER NOTICE GIVEN POINTER (✓) SI L'AVIS A ÉTÉ DONNÉ		DATE NOTICE GIVEN - DATE QUE L'AVIS A ÉTÉ DONNÉ LAST DAY TO BE WORKED - DERNIER JOUR DE TRAVAIL	
CHECK (✓) REASON FOR SEPARATION POINTER (✓) MOTIF DE CESSATION		LEAVING VOLUNTARILY ABANDON VOLONTAIRE DISMISSAL FOR CAUSE RENVOI POUR CAUSE LAYOFF DUE TO WORK SHORTAGE RENOI PAR SUITE DE MANQUE DE TRAVAIL		
IF OTHER CAUSE, SPECIFY AUTRES CAUSES, SPECIFIER		RATE OF PAY - SALAIRE PAYÉ \$ PER PAR		
SIGNATURE OF PARTY GIVING NOTICE (EMPLOYER OR EMPLOYEE)		SIGNATURE OF LA PARTIE DONNANT L'AVIS (EMPLOYEUR OU EMPLOYÉ)		
SIGNATURE OF PARTY RECEIVING NOTICE (EMPLOYER OR EMPLOYEE)		SIGNATURE DE LA PARTIE RECEVANT L'AVIS (EMPLOYEUR OU EMPLOYÉ)		
(SIGNATURE)		(SIGNATURE)		

NOTICE OF AT LEAST 7 CALENDAR DAYS DURATION MUST BE GIVEN
UN AVIS D'AU MOINS SEPT JOURS DU CALENDRIER DOIT ÊTRE DONNÉ

OVER - VERSO



A
B
C
D
CANADA
NATIONAL SELECTIVE SERVICE
SERVICE SÉLECTIF NATIONAL
NOTICE OF SEPARATION FROM EMPLOYMENT
AVIS DE CESSATION D'EMPLOI
EMPLOYER'S COPY - COPIE DE L'EMPLOYEUR

Form
v1

THIS NOTICE IS NOT EFFECTIVE UNLESS APPROVED BY A SELECTIVE SERVICE OFFICER. LE PRÉSENT AVIS N'A AUCUNE VALEUR À MOINS D'AVOIR ÉTÉ APPROUVÉ PAR UN AGENT DU SERVICE SÉLECTIF.	
EMPLOYEE EMPLOYÉ	NAME NOM ADDRESS ADRESSE OCCUPATION
EMPLOYER EMPLOYEUR	NAME NOM ADDRESS ADRESSE
REASON FOR WISHING TO GIVE NOTICE RAISON DE DONNER AVIS	
SIGNATURE OF PARTY GIVING NOTICE (EMPLOYER OR EMPLOYEE)	
SIGNATURE DE LA PARTIE DONNANT L'AVIS (EMPLOYEUR OU EMPLOYÉ)	
SIGNATURE OF PARTY RECEIVING NOTICE (EMPLOYER OR EMPLOYEE)	
SIGNATURE DE LA PARTIE RECEVANT L'AVIS (EMPLOYEUR OU EMPLOYÉ)	
DATE BOTH SIGNED CONJOINTEMENT SIGNÉ LE	
DAY JOUR	
MO. MOIS	
YR. AN.	
THE SELECTIVE SERVICE OFFICE AT: BUREAU DU SERVICE SÉLECTIF À:	
DATE SIGNED DATE DE LA SIGNATURE	
DAY JOUR	
MO. MOIS	
YR. AN.	
SIGNATURE OF SELECTIVE SERVICE OFFICER SIGNATURE DE L'AGENT DU SERVICE SÉLECTIF	
DATE SIGNED DATE DE LA SIGNATURE	
DAY JOUR	
MO. MOIS	
YR. AN.	

REFUSED - REFUSÉE

S.S. 208 -
2-40405 - 1,500M-10-43

CHECK
(✓)
POINTER

NATIONAL SELECTIVE SERVICE - SERVICE SÉLECTIF NATIONAL
"NOTICE OF SEPARATION FROM EMPLOYMENT FOR DESIGNATED ESTABLISHMENTS ONLY"
"AVIS DE CESSATION D'EMPLOI À L'USAGE DES ÉTABLISSEMENTS DÉSIGNÉS SEULEMENT"
COPY TO BE RETURNED TO EMPLOYER
COPIE POUR ÊTRE RETOURNÉE À L'EMPLOYEUR
COPIE POUR ÊTRE RETOURNÉE

INSTRUCTIONS RE FORM NSS 120, NOTICE OF SEPARATION FROM EMPLOYMENT

- Disposal of Copies of Forms:** The employee must retain after issue the copy marked "Employee's Copy". The employer must retain the copy marked "Employer's Copy". Within 48 hours of issue the employer must send to the nearest National Selective Service Local Office the copy marked "Copy for National Selective Service".
- Provisions of Blank Forms:** An employer must provide any employee on request with a triplicate set of these forms. If the employer has none of the forms in blank, he must immediately procure them for an employee if requested to do so.
- Important Provision:** No employer, with the exceptions stated in the order, may discuss or enter into a contract of employment with any person who does not first produce a copy of Form NSS 122 properly certified by a National Selective Service Officer; nor may any person negotiate or accept employment unless he produces for the inspection of a prospective employer a duly certified copy of Form NSS 122, as above referred to. Whereas NSS 120 has been issued to an employee, Form NSS 122 can be secured only on production of the "Employee's Copy" of Form NSS 120, at the National Selective Service Office nearest to the place of employment at which Form NSS 120 was issued.

INSTRUCTIONS SUR LA FORMULE NSS 120, AVIS DE CESSATION D'EMPLOI

- Disposition des copies de la formule:** Après l'émission, l'employé retiendra la copie marquée "Copie de l'employé". L'employeur retiendra la copie marquée "Copie de l'employeur". Dans les 48 heures de l'émission, l'employeur adressera au bureau local du Service sélectif national le plus rapproché la copie marquée "Copie du Service sélectif national".
- Provision de formules:** L'employeur doit fournir à tout employé, sur demande, une formule en trois copies. Si l'employeur n'a aucune formule, il devra immédiatement en procurer à l'employé, s'il est requis de le faire.
- Dispositions importantes:** Sous réserve des exceptions énoncées dans l'ordonnance, nul employeur ne doit discuter ou passer un contrat de service avec une personne qui ne produit pas une copie de la formule NSS 122 dûment attestée par le fonctionnaire du Service sélectif national; nulle personne ne peut non plus engager des pourparlers, ni accepter de l'emploi, à moins de produire, pour vérification par l'employeur éventuel, une copie de la formule NSS 122 dûment attestée comme sus-dit. Lorsqu'une formule NSS 120 aura été émise à une employé, la formule NSS 122 ne pourra être obtenue que sur la production de la copie de la formule NSS 120 marquée "Copie de l'employé", au bureau du Service sélectif national le plus rapproché du lieu d'émission de la formule NSS 120.

THIS NOTICE IS NOT EFFECTIVE UNLESS APPROVED BY A SELECTIVE SERVICE OFFICER.

LE PRÉSENT AVIS N'A AUCUNE VALEUR À MOINS D'AVOIR ÉTÉ APPROUVÉ PAR UN AGENT DU SERVICE SÉLECTIF.

EMPLOYEE EMPLOYÉ	NAME NOM	INSURANCE NUMBER NO. D'ASSURANCE	
	ADDRESS ADRESSE	CHECK (✓) POINTER	MALE HOMME FEMALE FEMME
	OCCUPATION	TELEPHONE NUMBER NO. DE TÉLÉPHONE	
EMPLOYER EMPLOYEUR	NAME NOM	TELEPHONE NUMBER NO. DE TÉLÉPHONE	
	ADDRESS ADRESSE		
REASON FOR WISHING TO GIVE NOTICE — RAISON DE DONNER AVIS			
SIGNATURE OF PARTY GIVING NOTICE (EMPLOYER OR EMPLOYEE)		SIGNATURE OF LA PARTIE DONNANT L'AVIS (EMPLOYEUR OU EMPLOYÉ)	
SIGNATURE OF PARTY RECEIVING NOTICE (EMPLOYER OR EMPLOYEE)		SIGNATURE DE LA PARTIE RECEVANT L'AVIS (EMPLOYEUR OU EMPLOYÉ)	
DATE BOTH SIGNED CONJOINTEMENT SIGNÉ LE		DATE DE LA SIGNATURE	
DAY JOUR		MO. MOIS	
YR. AN.		YR. AN.	
GRANTED - ACCORDÉE PERMISSION TO TERMINATE EMPLOYMENT AS OF →		LAST DAY TO WORK DERNIÈRE JOURNÉE DE TRAVAIL	
PERMISSION DE TERMINER L'EMPLOI À COMPTER DE →		DAY JOUR	
		MO. MOIS	
		YR. AN.	
REFUSED - REFUSÉE		CHECK (✓) POINTER	
N.S.S. 208 - K.F. 50103 - 1-10-43		SIGNATURE OF SELECTIVE SERVICE OFFICER SIGNATURE DE L'AGENT DU SERVICE SÉLECTIF	

NATIONAL SELECTIVE SERVICE - SERVICE SÉLECTIF NATIONAL

"NOTICE OF SEPARATION FROM EMPLOYMENT FOR DESIGNATED ESTABLISHMENTS ONLY"

"AVIS DE CESSATION D'EMPLOI À L'USAGE DES ÉTABLISSEMENTS DÉSIGNÉS SEULEMENT"

COPY TO BE RETURNED TO EMPLOYEE

COPIE POUR ÊTRE RETOURNÉE À L'EMPLOYÉ

priority rating. In other words a man may be frozen to his job if it is considered essential, as this card requires the signature of a Selective Service Officer before it becomes effective. If, on the other hand, the company has no special priority rating Form No. VII must be completed seven days previous to termination of employment. The employee's copy of either Form No. VI or VII must be personally presented to the Selective Service Office before permission is granted to seek employment elsewhere.

It will be seen therefore that the government has achieved its purpose of controlling the demand and supply of labour. Moreover, the placement officer is equipped with information about the job and about the potential candidate for that position. When a man is placed on a job, it may be said that employability has been defined in regard to that particular individual.

Thus a twofold problem presents itself to the placement officer when he is interviewing an applicant. First, he must attempt to find a job which will utilize the particular characteristics, abilities and experience of the individual. Second, he must find for the employer the man who will best fulfil the requirements of the job. In the case of persons who are mentally, emotionally or physically handicapped the problem of defining employability is magnified because the work limitations imposed

by the handicap curtail the number of possible openings that are available.

In order to cope more successfully with the problem, further information both about the individual and about the job must be obtained. Sources of material relating to the individual can be acquired in the form of: medical data supplied by the applicant's family physician, by the hospital clinics, or in some cases, by a medical practitioner nominated by the National Selective Service; aptitude and level of intelligence by objective psychological tests; work history from previous employers; educational background from former school principals; welfare record from local social agencies; and finally, personal history from the applicant himself. By piecing together these various factors the placement officer is able to determine with some degree of accuracy the potentialities of the applicant.

However this is only one-half of the definition, as the requirements of the job must be determined. In order to supplement the information supplied by the employer (Form No. III), visits may be paid to industries reporting shortages of labour, and in many cases job analyses and job descriptions can be prepared. Mr. Cox, the officer in charge of Special Placements in the Hamilton office of the National Selective Service,

has developed a job analysis technique which combines "Time and Motion" study with analysis procedures used by the British Institute of Industrial Psychology and the American Employment Service. To determine how the various types of the handicapped may be used most effectively, six aspects of the job are considered:

- 1) muscular movements involved, 2) energy consumed, 3) physical conditions (fumes, etc.), 4) mental conditions (monotony, etc.), 5) intelligence and special abilities required, 6) personality aspects of the job (frequency of social contacts, etc.).

(1) An example of this procedure is presented in Form VIII. A more complete picture can be obtained by completing a chart similar to Form IX. However this second form takes much longer to prepare and, as the firm's time should be a consideration, it cannot always be used. The job analysis, no matter how complete, often fails to provide an adequate picture of the task simply because a job is something more than the sum of its parts. As a time saver and sometimes as a supplement Mr. Cox has devised the job description Form X which can be easily prepared. The ideal situation would evolve if both a job analysis and a job description could be made of each operation.

Thus, it will be seen that by coupling vocational counselling and job analysis a more accurate definition

Form NO. VIII. An Example of a JOB ANALYSIS as prepared by Mr. K. J. Cox, Unemployment Insurance Commission.
Hamilton, Ontario.

<u>Job</u>	<u>Motor</u>	<u>Energy</u>	<u>Physical Aspects</u>	<u>Mental Aspects</u>	<u>Intelligence</u>	<u>Special Aptitude</u>	<u>Personality</u>	<u>Use of Handicapped</u>
	Muscular Movements	Weight & Distance object moved.	Dust, Fumes, etc.	Monotony, etc.	Judgment, etc.	Special Abilities	Contact with others, etc.	
Rolling Hinges 800 per hour	Inserts blank into roller & presses treadle, turns & takes out of Machine	Medium (sitting-down)	Oily	Little variation	Average	Fair manual dexterity of grosser hand & forearm type.	"on own"	Deafness, slight cardiac, hernia, slight leg disability.
Washing	Feeds materials to be washed into wire basket, then into machine, then takes off carrier.	Considerable	Oily & possibly damp.	Some variation	Ordinary	Gross motor skills of lifting off and on of baskets, etc.	"on own"	Deafness
Heat Pressing	Heats plates, etc. in muffle furnace. Then moves 6 ft. to press, where punches out cylinder.	Fairly heavy	Hot & oily	Some variation	Ordinary	Gross motor abilities of reaching with tongs for hot metal swinging into punch, taking out, etc.	"on own"	Able Bodied.
Heavy Track Department	Uses presses, shears, & drills	Medium to Heavy	Clean	Considerable variation	Good	Good mechanical and manual ability & general adaptability	"on own"	Fairly able bodied.
Pin-driving	Stands & inserts pins in slot & then automatically forced in.	Little other than feeding	Clean but Noisy	Little variation	Fair	Some manual dexterity	"on own"	Deafness, slight cardiac, hernia, leg disability.
Hand Stacking for feeding	Sits and stacks hinges.	Fair amount	Clean & some noise.	Little variation	Fair	Some manual ability	"some team work"	Deafness, slight cardiac, hernia, lameness.
Copper plating & lacquering	Cleans objects by inserting in necessary baths; connects negative terminals to objects; fastens copper plate to positive terminals; allows objects to remain in tanks necessary time; regulates electricity; takes out; lacquers centrifuges; and puts in tumbler.	Considerable	Damp. Some tendency to fumes.	Some variation	Good	Considerable manual & mechanical ability.	"on own"	Able bodied.

J O B A N A L Y S I S

Name of Firm
Name of Department
Name of Job
Description of Job

MANUAL AND BODILY SKILLS

	Sensitivity	Flexion	Extension	Torsion Right	Torsion Left	Abduction	Adduction	Precision					Speed					Weight	Distance	Times per unit
								A	B	C	D	E	A	B	C	D	E	W	D	T
Finger	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Wrist	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Forearm	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Upper Arm	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Hip Pivot	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Knee Pivot	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Ankle Pivot	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Upper Leg	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Lower Leg	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()
Ankle	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()

MENTAL FEATURES OF THE JOB

PHYSICAL FEATURES OF THE JOB

	A	B	C	D	E
Intelligence	()	()	()	()	()
Clerical Ability	()	()	()	()	()
Mechanical Ability	()	()	()	()	()
Numerical Ability	()	()	()	()	()
Language Ability	()	()	()	()	()
Perception	()	()	()	()	()
Attention	()	()	()	()	()
Memory	()	()	()	()	()
Reasoning	()	()	()	()	()

DISABILITIES	
Loss of one finger, etc.	()
Loss of hand	()
Loss of arm	()
Fallen arches, etc.	()
Leg disability	()
Hernia	()
Back Injury	()
Gastric Ulcers etc.	()
Heart Diseases	()
Lung Diseases	()
Defective Vision	()
Deaf Mutiam	()

PERSONALITY ASPECTS OF THE JOB

JOB DESCRIPTION

Occupation	Job Description	Type
Billet Cutter	Cuts billets to proper size, using blow torch and billet cutting table	Heavy Labour
Billet Piler	Piles 150 lb. of square billets in special cradle by which they are transported by crane to furnace. Involves 2' to 3' lift. (Billets per hr: 125, 60, 75, 140, 130, 130. Average per hour - 110)	Heavy Labour
Furnace Receiver	Takes billets from special cradle & places on rollers that take billet down to furnace entrance.	Heavy Hot Labour
Furnace Man	With special tongs fastened to overhead support, swings billet from rollers to furnace, placing therein.	Heavy Hot Labour
Corner Roll Man	With tongs inserts billet in to press that takes off corners and with water, de-scales	Heavy Hot Labour
Die Pot Man	Swings billet to press or die pot with plungers above and below that pierce and hollow.	Heavy Hot Labour
Draw Bench Hand	Hot billet is horizontally inserted into a draw bench that draws into desired shape.	Heavy Hot Labour
Tester	By means of "eccentric" checks billets for size and shape.	Light Labour
Cooling Floor Attendants	Rolls billets out onto sanded floor to cool and pile.	Heavy Hot Labour
Sand Blaster	Inserts billets into special floor height containers in which they are sand blasted. (Uses steel grit.)	Medium to Heavy Labour
Inside Sand Blaster	Use sand blast fan that blasts out inside of billets.	Medium to Heavy Labour
Inspectors	Inspect shells on racks and sends them out to be packed in freight cars.	Medium Labour

of employability can be obtained. In fact, this combined technique has made many successful placements of the handicapped possible, to the benefit both of the individual and the industry which employs him. (1)

However, one must remember that a placement officer, by defining employability, takes upon himself a tremendous responsibility. The burden increases infinitely if the need arises to consider an impaired individual as unemployable. The Hamilton Employment and Selective Service Office is to be commended for adopting the procedure of counseling applicants rather than requiring them to take jobs which, in the mind of the placement officer, appears to be suitable to the individual. Perhaps to the layman, this is a fine distinction, but closer observation will reveal that the difference is very significant. Counseling implies that all the possible choices that are open to the applicant are laid before him. Moreover, it signifies that all the complex factors affecting his case are presented for his personal evaluation. The actual choosing lies with the individual. This can be successfully accomplished only by the highly trained placement officer who is in a position to determine the applicant's suitability for a particular job. His task is to find the most suitable position and having found it to present it along

with less suitable opportunities. Thus he counsels but he does not advise or require. In the case of unemployable persons, other evidence such as medical certificates and the like may be needed. The cooperation of a number of men skilled in social work is superior to the counseling of one man. Hence by complete and objective reports, by the assistance of skilled social workers, an applicant can be wisely counselled. It follows therefore that no one need shoulder the tremendous responsibility of determining when a man is unemployable.

BIBLIOGRAPHY

Chapter II

- (1) Cox, K. J.
"Use of the Handicapped in War Industries".
Bulletin of the Canadian Psychological
Association.
Vol. III, No. 2, (April 1943) pp. 23-24.

CHAPTER III

AGE AND EMPLOYABILITY

Although the complexity of employability has been indicated and the manner of defining it in practice has been described, nothing has been said so far as to the nature of the indefinite factors which, when they are brought together, determine the employment possibilities of the individual. For this reason, both the age and medical aspects are considered briefly as they are the major factors affecting the supply of labour.

Each study is based on information gathered by the Hamilton Employment and Selective Service Office. Two Orders-in-Council were responsible for its compilation. P. C. 1445, March 1942, required all unemployed persons between the ages of 16 and 69 inclusive to register with the local office in order that a manpower inventory would be available. (5) In addition, P. C. 7595, August 1942, required that any person who has attained his sixteenth birthday and has not reached his sixty-fifth birthday must register if he has not been gainfully employed for a period of seven consecutive days, in order that he may accept suitable employment.¹ (6)

These registrations fall naturally into three

1 The registration was filed upon Form No. I (see page 29).

groups. The first consists of employable persons who for one reason and another, often not their own, have found themselves out of work and so have come to the Selective Service to seek employment. This investigation is not concerned with these people as there is no question as to their ability to work. They are the employables. The second group is made up of men who are handicapped either emotionally, mentally or physically. These are employable only in certain fields. As they presented a placement problem they were segregated from the first group and were placed in jobs by the Special Placements Section which is staffed by men skilled in dealing with such problems. The third group was comprised of all those who were so seriously impaired that they were unemployable. Naturally, the dividing line between groups two and three is exceedingly vague. Many of the borderline cases oscillate to and fro. Consequently a study of employability must consider both groups. Herein lie the economist's marginal cases.

As age is perhaps one of the most important factors affecting a man's ability to work, an examination of the ages of the handicapped employed men and the unemployed persons was undertaken. Thus, a fairly accurate estimate of the age beyond which a man is no longer employable was obtained.

In the United States, the recent Federal Emergency Relief Administration and its successor the Works Progress Administration considers that a man of sixty-five years of age is unemployable. (4, p.218) The National Selective Service Civilian Regulations do not regard a person who has attained his sixty-fifth birthday as an "employee". Nor are such individuals required to apply for employment. (7)

The study of 478 cases of "unemployable" men in the city of Hamilton between the ages of 16-69 inclusive, reveals that practically two-thirds of them had reached and passed their sixtieth year. Almost one-third of the entire group were between the six years, 60 - 65, while over one-third were of an age ranging from 66 - 69 inclusive. Moreover, an examination of 359 cases of handicapped individuals between the ages of 16 - 69 inclusive who had been successfully placed by the Special Placement Section indicates that only six percent of the entire group were 60 years of age and over. Table I sums up these findings. ¹

These figures suggest that the majority of men are past their working days at sixty-five. Consequently, with a few exceptions, a study of employability should

1 The information is given in full in Appendix A, Tables VIII and IX.

Table I

THE EFFECT OF AGE UPON EMPLOYABILITY

Age (years)	Handicapped Employables	Unemployables
16 - 69	100.0 %	100.0 %
16 - 59	94.1 %	36.0 %
60 - 65	4.7%)	29.5%)
) 5.9 %) 64.0 %
66 - 69	1.2%)	34.5%)

Source: Files, Employment and Selective Service Office
Hamilton, Ontario.

only be concerned with those persons between the ages of 16 and 65.

In regard to men below 65 years of age, one wonders how soon and at what rate, age becomes a factor to be reckoned with. To solve this problem all those above 65 years of age in the unemployable group were set aside. The distribution contained then only 313 individuals. It was deemed advisable to compute a second degree equation to describe the general tendency or trend. Certainly, the sample is large enough to support a fairly reliable fit. Moreover, the irregularity of the data required some appropriate and objective method of determining a measure of central tendency about which the entire population might be expected to group itself. The significance of age and the rate of increase of its

importance can be clearly seen from table II, which was computed on the basis of this equation.¹

Table II
UNEMPLOYABLE MEN CLASSIFIED ACCORDING TO AGE

Age Group (years)	Percent of Total
16 - 45	12
46 - 50	11
51 - 55	17
56 - 60	25
61 - 65	35
16 - 65	<u>100</u>

Source: See Appendix A.

It will be noticed immediately that 88 percent of the entire group of unemployables are within the age group 46 - 65, while only 12 percent fall between the ages of 16 - 45. Of this 12 percent, no one age monopolizes more than one percent and the majority of ages contain considerably less than one half of one percent of the total group of unemployables.

These figures strikingly point out the increasing difficulty that a man experiences as he grows older in finding and holding a job. However it should not be

¹ See Appendix A, for particulars regarding computation and reliability of the equation.

assumed that a man becomes employable because of age alone. He does not.¹ Rather, age by cooperating with sickness puts a man out of work and keeps him there. A young man is not seriously troubled with a weak heart or a respiratory disease such as Asthma in a mild form, but as he grows older his body is not so capable of over-coming these handicaps. The Asthma may become more restricting and the Heart disease often develops into a chronic condition. Or again, such objective factors as cyclical and technological unemployment by relieving an aged person of his job makes it impossible for him to regain employment.

On the one hand, therefore, old workers may be more susceptible to unemployment because of failing physical strength or dexterity and of inability to stand the pace of the factory. In addition the substitution of skilled handiwork by machine processes and changes in demand which outmode old products and creates new

1 "Statistically it has been shown that older men are no more likely to lose work than the younger ones, they are perfectly capable of rendering satisfactory service.....the one intractable part of the unemployment problem for most Labour Exchanges is represented by the men of fifty-five and upwards, anxious to work, with long records of work behind them, but unable, once they have lost work with their old employer, to persuade a new employer to try them. Just because each employer, having the choice between two men, tends to prefer the younger, the older man is never given a chance at all;....." Beveridge, UNEMPLOYMENT:p.406. (2)

industries hit the aged worker the hardest. On the other hand age means greater maturity, increased experience, responsibility and seniority which embody a degree of security. (3, p.316)

Another factor to be reckoned with is the effect of long unemployment as it has a high degree of correlation with age. In England it was found that the risk of long unemployment rises suddenly at 21, then rises fairly gradually to the age of 55, where there is another sudden jump. In fact, only twelve years of life separate the average employed worker, which is about 32 years of age, from the average long unemployed individual of 44 years of age. (8, p.20) Moreover, it is estimated that the risk of being unemployed is half as much again at the age of 60 - 64 as from 35 - 44. While the risk of unemployment prolonged for a year or more is two and one half times as great. In sharp contrast with this situation, it should be noticed that the risk of a man in the age group 60 - 64 losing his job is not greater than that of a man in the age group 35 - 44. Hence the older man, once he has lost his job, finds it harder than a young man to get a new one. The older man has less power of recovery physically, from sickness or accident. Once he has become unemployed, he is likely to remain unemployed for longer than a young man. (1)

It will be seen that the problem of age is extremely complicated. On the basis of our Hamilton study two rather general conclusions can be drawn.

- 1) That age is not to be considered as a factor in unemployability between the ages of sixteen and forty-five inclusive. The natural corollary is that some other factor such as a chronic heart condition or a serious mental deficiency must be the cause of unemployability for people in this age group.
- 2) That age becomes a factor shortly after the forty-fifth year and that from then on, it becomes increasingly more important year by year.

BIBLIOGRAPHY

Chapter III

- (1) Beveridge, W. H.
 "An Analysis of Unemployment", Economica,
 (Feb. 1937), pp. 13-14.

- (2) Beveridge, W. H.
Unemployment, a Problem of Industry.
 (1909 and 1930)
 London: Longmans, Green and Co. 1930, 514 p.

- (3) Marsh, L. C.
Canadians in and out of Work,
McGill Social Research Series No. 9
 Toronto: Oxford University Press, 1940, 503 p.

- (4) Nixon, R. A.
The Problem of Employability.
 An Unpublished Ph. D. Thesis, Harvard University. April, 1940. 365 p.

- (5) Order in Council
 "Compulsory Registration of Unemployed Male
 Persons". Canada Gazette. Vol. LXXV, No. 47,
 (23/5/42), p. 4950. P. C. 1445 (March 2, 1942).

- (6) Order in Council
 "National Selective Service Regulation, 1942".
Proclamations and Orders in Council
 Ottawa: King's Printer, 1942, Vol. VIII, pp.
 130-138. (Canada Gazette (extra), August 28,
 1942). P. C. 7595, (Aug. 26, 1942).

- (7) Order in Council
 "The National Selective Service Civilian Regu-
 lations". Canadian War Orders and Regulations,
 Vol. I, No. 4, Extract.
 Ottawa: King's Printer, Feb. 1, 1943, P. 3,
 para. 200 (b). P. C. 246, (Jan. 19, 1943).

(8) Pilgrim Trust.

Men Without Work.

London: Cambridge University Press, 1938,
447 p.

CHAPTER IV

PHYSICAL AND MENTAL IMPAIRMENTS

A man's emotional, mental and physical condition is extremely important in determining his ability to work. In order to evaluate these complex factors, the incidence of the paramount maladies was determined by an examination of the registration cards. A brief explanation of the method used in compiling these registrations is necessary however.

Placement Officers completed the forms by asking the applicant suitable questions. Because of this method of compilation the resulting data tends to be unscientific. In part, the reason for this is that the Placement Officers, although trained in the rudiments of interviewing, could not be considered skilled in this art from the Psychologist's point of view. Moreover, they had no adequate medical, psychological or psychiatric background which would have enabled them to record the evidence more accurately. While medical certificates were required in the less obvious cases, a study of the cards reveals that no accurate analysis of the condition had been made in many cases. For example, such terms as heart trouble,

nervousness, general run-down condition, etc. do not allow a precise definition to be drawn. In addition, the subjective report of the individual is highly unsatisfactory as a basis for an objective study. In general, it might be said however that the application of the disabled men who were placed by the Special Placements Section are more reliable than those of the Unemployables, as the information was often tabulated by individuals who had had considerable training in this department.

While the original data is rather unscientific, the method used to evaluate it may appear to detract still further from an objective basis. Whenever more than one disease was mentioned only the foremost was considered, assuming that the most serious ailment would be mentioned first. This appears to be inadequate and, if anything, misleading. However, in the original study the second or third disorder listed was taken into consideration by means of a cross classification. When these secondary maladies were added to the first classification, it was found that the importance of one disease over another was not affected in any major instance. Moreover, the problem of determining the meaning of a heart condition complicated with stomach trouble on one occasion,

and asthma by nervousness on another was insurmountable. Influenced, therefore, by the initial unscientific nature of the raw data, by the tremendous task of interpreting the effect of the secondary disorder and bolstered by the fact that the secondary classification did not materially affect the significance of the distribution obtained, the first malady that was mentioned by the applicant is the only one that has been considered.

Although only persons who have not attained their sixty-fifth birthday are required to apply for employment, numerous applicants have been placed who are above this age. For the purpose of a comparison between the employed who are impaired and the unemployed, all persons under 16 years and over 65 years of age have been excluded.

The employable handicapped persons have been classified in Tables III and IV according to their disability. The absolute figures are presented in Table III, and are expressed in the relative form in Table IV. The unemployable individuals have been similarly classified in Tables V and VI, respectively.

Many interesting facts are revealed by a comparison of these two sets of tables. First, it will be noticed that the same disability does not top each list.

Employable Handicaps Classified According to Disability.
(Absolute Figures)

Neurosis:	Neurosis	35	
	Mentally deficient	14	49
Foot and Leg Injuries			36
Amputations:	One or More Fingers	7	
	One Hand	2	
	Two Hands	0	
	One Arm	8	
	Two Arms	1	
	One Foot	1	
	Two Feet	0	
	One Leg	12	
	Two Legs	0	31
Respiratory:	Respiratory	23	
	Tuberculosis	8	31
Blind:	Complete	1	
	Partial	28	29
Paralysis			21
Gardiac:	Blood Pressure	0	
	Anaemia	1	
	Other	19	20
Deaf:	Deaf	11	
	Hard of Hearing	8	19
Back Injury			17
Arthritis:	Arthritis	7	
	Rheumatism	6	13
Hand and Arm Injuries			13
Stomach			10
Hernia			8
Diabetes			2
Surgical Cases			1
Nephritis			0
Miscellaneous			23
Total			323

Source: Files, Employment and Selective Service Office,
Hamilton, Ontario.

Employable Handicaps classified according to Disability.
(Relative Figures)

Neurosis:	Neurosis	10.8%	
	Mentally Deficient	4.3%	15.1 %
Foot and Leg Injuries			11.2 %
Amputations:	One of More Fingers	2.2%	
	One Hand	.6%	
	Two Hands	0.0%	
	One Arm	2.5%	
	Two Arms	.3%	
	One Foot	.3%	
	Two Feet	0.0%	
	One Leg	3.7%	
	Two Legs	0.0%	9.6 %
Respiratory:	Respiratory	7.1%	
	Tuberculosis	2.5%	9.6 %
Blind:	Complete	.3%	
	Partial	8.7%	9.0 %
Paralysis			6.5 %
Cardiac:	Blood Pressure	0.0%	
	Anaemia	.3%	
	Other	5.9%	6.2 %
Deaf:	Deaf	3.4%	
	Hard of Hearing	2.5%	5.9 %
Back Injury			5.3 %
Arthritis:	Arthritis	2.2%	
	Rheumatism	1.9%	4.1 %
Hand and Arm Injuries			4.0 %
Stomach			3.1 %
Hernia			2.5 %
Diabetes			.6 %
Surgical Cases			.3 %
Nephritis			0.0 %
Miscellaneous			7.0 %
			<hr/> 100.0 %

Source: Files, Employment and Selective Service Office,
Hamilton, Ontario.

Unemployables Classified According to Disability.
(Absolute Figures)

Cardiac:	Blood Pressure	4	
	Anaemia	2	
	Other	48	54
Respiratory:	Respiratory	30	
	Tuberculosis	14	44
Blind:	Complete	13	
	Partial	13	26
Arthritis:	Arthritis	15	
	Rheumatism	6	21
Paralysis			12
Neurosis:	Neurosis	9	
	Mentally Deficient	2	11
Hernia			11
Stomach			10
Foot and Leg Injuries			10
Back Injuries			7
Deaf:	Deaf	4	
	Hard of Hearing	0	4
Diabetes			3
Nephritis			2
Surgical Cases			2
Amputations:	One or More Fingers	0	
	One Hand	0	
	Two Hands	1	
	One Arm	0	
	Two Arms	0	
	One Foot	0	
	Two Feet	0	
	One Leg	0	
	Two Legs	0	1
Miscellaneous			27
		Total	245

Source: Files, Employment and Selective Service Office,
Hamilton, Ontario.

Unemployables Classified According to Disability.
(Relative Figures)

Cardiac:	Blood Pressure	1.6%	
	Anaemia	.8%	
	Other	19.6%	22.0 %
Respiratory:	Respiratory	12.2%	
	Tuberculosis	5.7%	17.9 %
Blind:	Complete	5.3%	
	Partial	5.3%	10.6 %
Arthritis:	Arthritis	6.1%	
	Rheumatism	2.4%	8.5 %
Paralysis			4.9 %
Neurosis:	Neurosis	3.7%	
	Mentally Deficient	.8%	4.5 %
Hernia			4.5 %
Stomach			4.1 %
Foot and Leg Injuries			4.1 %
Back Injuries			2.9 %
Deaf:	Deaf	1.6%	
	Hard of Hearing	0.0%	1.6 %
Diabetes			1.2 %
Nephritis			.8 %
Surgical Cases			.8 %
Amputations:	One or More Fingers	0.0%	
	One Hand	0.0%	
	Two Hands	.4%	
	One Arm	0.0%	
	Two Arms	0.0%	
	One Foot	0.0%	
	Two Feet	0.0%	
	One Leg	0.0%	
	Two Legs	0.0%	.4 %
Miscellaneous			11.2 %
			<hr/> 100.0 %

Source: Files, Employment and Selective Service Office,
Hamilton, Ontario.

Secondly, mechanical or orthopedic disabilities, such as amputations and sensory deficiencies such as blindness and deafness, while important disabling factors, are seldom sufficient to make a man unemployable.

Thirdly, it is significant that so many physically employable men find it difficult to obtain jobs because of neurotic conditions. Fourthly, the investigator noticed when he was gleaning the data that such ailments as heart trouble or respiratory disease were frequently reported as "chronic" in the case of the unemployables, whereas the employable cards suggested mild forms of the malady. However, this is not surprising. As will be remembered, Table I shows that the unemployables consist mainly of old men while the employables are for the most part younger men. Obviously, therefore, the relative positions of many of the diseases can be explained on this basis. Finally, a medical, psychological and psychiatric background is needed to evaluate fully the complex nature of the cases on which these tables were based.

A great deal can be added to the significance of these tables by a detailed study of the most important types of disability. Moreover, in this manner the vague and complex nature of employability is revealed. While the nature of the various maladies must of necessity

be discussed, an attempt has been made to present the potential working capacity of those who are impaired by a particular ailment. Whenever possible the material has been supplemented with actual cases that have found employment in Hamilton.

The most important diseases are discussed according to their prevalence as causes of unemployability. But this arbitrary procedure should not be allowed to detract from the relative importance of the particular impairment for an employable person.

Heart Conditions

For employment purposes, heart conditions can be divided into two groups according to the age at which the disease becomes a handicap. For instance, the young are affected by Congenital Malformation of the heart and by Rheumatic Heart Disease, whereas Syphilitic Infection and Arteriosclerotic Heart Disease attack for the most part adults past middle age. While it would be impossible, if not futile to consider at this time all the various complications of these commonest forms of heart trouble, the placement officer must have a rudimentary knowledge at least of these diseases in order that he may determine the employment possibilities of those affected by them.

Congenital Malformations of the Heart.

Congenital malformation may give rise to a form of heart disease. As the fetus is developing before birth, unknown influences may result in the formation of a heart which is not perfect in structure. One or more valves may be defective, unusual opening may allow the blood to follow a wrong course, the formation of the chambers may be imperfect and so on: so that the normal circulation of the blood is prevented. While extreme cases die at birth, milder cases may live through childhood, and a few live even to old age. Some have shortness of breath due to this condition, while others do not, and some scarcely show the bluish colour due to the imperfect circulation of the blood. (18) It will be seen therefore that relatively few cases of Congenital Heart Disease will present themselves to the placement officer. It is a severe handicap which is most prevalent among the young.

Rheumatic Heart Disease.

Rheumatic fever is a common cause of heart disease, affecting especially the young. Practically every instance of this disease is accompanied by cardiac involvement. It frequently attacks the valves, the pericardium, the myocardium, or the epicardium so that the tissue may remain in a diseased condition for years

after the Rheumatic Fever is gone. Symptoms of myocardial insufficiency with shortness of breath and swelling are often present with the acute attack at the beginning of the disease, or may appear later as a result of marked valvular damage. The symptoms of the acute attack may subside and leave the patient quite well. Unless there is repeated activity of the rheumatic process or marked valvular damage, a patient with valvular disease may go for years without symptoms until the processes of age lead to myocardial weakness. Anginal pains are only rarely present with Rheumatic Heart Disease; the typical symptom is shortness of breath following exertion. (18)

Usually this disease appears before twenty years of age, though it may not do so until ten or fifteen years later. (18) It has been found in one study that between 80 - 90 percent of all Cardiac Disease in persons under forty years of age is also of Rheumatic origin. (15) Of the 310 new cases of Rheumatic heart Disease reporting to the Cardiac Clinics of greater Cincinnati during the years 1931 - 1940, seventy-one percent were under forty years of age. These patients came to the clinics because of deficiencies which limited either their ordinary activities or their working capacities. In other words, they had started to experience

the symptoms of heart failure, although the causative factor had occurred ten to twenty years previously. Actually they were nearing the end of life's span. (3) Arteriosclerosis.

The commonest form of heart disease is Arteriosclerosis, or Hardening of the Arteries. It is one of the most important degenerative processes that occur with advancing age. Not only does the seriousness of the malady tend to increase with age, but it is also an inflammatory process. As the result of the action of various injurious agents, the inner coat of the arteries may become inflamed. Cells are killed and replaced by fibrous or scar tissue, bringing about a thickening of the opening through the blood vessel. Later, lime salts may be deposited in the arterial wall. In the same manner, but more gradually, the death of cells and their replacement by fibrous or scar tissue occurs with old age. The rapidity with which this process takes place varies in different individuals. Diabetes, Kidney Trouble, High Blood Pressure, and chronic Lead Poisoning sometimes give rise to the Arteriosclerotic form of heart disease. It often happens that one branch of the small coronary arteries, which supply the blood to the muscles of the heart will be more affected by Arteriosclerosis than others. It cannot dilate, as it

should, to carry an extra amount of blood when there is need. The muscle supplied by this vessel thus lacks proper nourishment and removal of waste products. Thus, when the heart is called upon for extra effort, a symptom of pain or discomfort is felt in the chest, which is called Angina Pectoris. It arises on effort or with excitement, and passes off in a few minutes when the effort is stopped. Symptoms of this disease usually appear after fifty, but occasionally they are experienced between forty and fifty, while only exceptional cases occur previous to middle life. (18) It is the most common heart disease in older men and women and it is quite often associated with other functional disorders.

Syphilitic Infection.

Syphilis gives rise to a considerable number of cases of heart disease that tends to become more serious with age. It affects particularly the wall of the aorta. The disease may extend downward along the aorta to the heart and in so doing may lead to the narrowing or closure of one of the coronary arteries. This will cause anginal symptoms, perhaps pain on effort or, if a coronary artery becomes closed, death may occur in a severe attack like that resulting from Coronary Thrombosis. If the disease extends

further downward, it involves the aortic valves. This in turn leads to hypertrophy and dilation of the heart. As the disease usually affects the coronary arteries at the same time as the valves, the muscle does not receive a proper blood supply, and myocardial insufficiency sets in with shortness of breath. (18) The victim of Syphilitic Heart Infection does not experience the disability symptoms for a number of years after the disease has been contracted. Generally, they appear between thirty-five and fifty years of age for 60 percent of those affected, and as a rule, forecast the death of the patient in a very few years. (3)

Mental Aspects.

The mental aspects of Heart Disease are important in placing an individual in the proper job. One study showed that of twenty-two patients with organic heart disease between the ages of five and fourteen, only 18 percent had an I. Q. between 91 - 110 (Binet) as compared with 32 percent of 1,000 other children. (21, p.288) This would suggest that the intelligence of individuals with Rheumatic and Congenital Heart Diseases may be slightly below the average. Moreover, when a child is told that he has heart disease and that he will be unable to carry on as his playmates, he may become "heart-conscious" so that his whole life is coloured by the knowledge of his cardiac disability.

It is significant that of thirty-one patients in Chicago, who were interviewed by a Psychiatrist, fifteen were said to show mental conflict or emotional disturbance. (21, p.290) This emotional maladjustment leads often to a case of Cardiac Neurosis wherein the person becomes dominated by such thoughts as the jobs which he cannot hold, because of his disability. Then again there are cases of a cardiac complex that serve largely as a defence for the imaginary sufferer to claim relief. Lastly, there are cases of Neuro-circulatory Asthenia, which is a neurotic condition rather than an organic disease manifested by palpitation, weakness, nervousness, shortness of breath, numbness or tingling of the extremities. Such an illness is a major disability which may result from the inability of the patient to adjust to the conflict of wartime military service because of inherent emotional instability. Such cases require special psychiatric guidance. (7)

The diseases that have been presented are only a few of the most common forms of heart trouble. But they should be sufficient to show that each individual case will have to be treated separately according to its merits and that in all cases proper placement cannot be scientifically achieved without a complete

diagnosis of the disease by a doctor. It should be clearly understood that the kind and severity of the disease determines the care, treatment, living conditions and working capacity of each person individually.

A few generalizations can be made regarding the types of work that cardiac patients can perform.

- 1) Stair climbing: If he stops to rest as soon as there is shortness of breath, he may climb stairs without injury. Most cardiacs should not be placed on jobs requiring excessive or rapid stair climbing.
- 2) Heavy lifting: Persons with Cardiac Diseases involving slight limitations of physical activity, that is to say when ordinary physical activity is undertaken, discomfort results in the form of undue fatigue, palpitation, dyspnea or anginal pain, should not be placed on jobs requiring them to lift more than fifteen pounds.
- 3) Working under great pressure should be avoided.
- 4) Undue exertion or fatigue should be refrained from.
- 5) Cases of Rheumatic Fever should keep away from extreme changes of temperature, damp atmosphere, or exposure to all kinds of weather. (5, p.746)
- 6) Occupations that keep the patient in a state of excitement or emotional upset should be avoided.

- 7) Work on high scaffolds, building, or other similar places may cause dizziness and fainting spells with cardiac cases.
- 8) Jobs that necessitate too much use of the arms are more objectionable than work requiring use of the legs, such as standing or walking. (15)
- 9) Persons with a diagnosis of Anginal Pectoris are often liable to sudden death, because this may indicate that they are suffering from an advanced form of Coronary Thrombosis. The seriousness of this condition varies with age and it is a very serious impairment for persons over forty-five. (5, p.745)
- 10) Persons with blood pressure of more than 200 should not do heavy labouring work or heavy lifting.
- 11) Persons with Arteriosclerosis should avoid bending or stooping; sedentary work is advisable. (5, p.743)
- 12) In general, cardiacs can do whatever they are able to do without incurring a decided shortness of breath. (5, p.746)

It has been found that rheumatic cases are the most favourable for rehabilitation; that cases of high blood pressure are probably the next most favourable; that cases with Arteriosclerosis, either generalized or of the Coronary Artery, are usually doubtful; while Congenital cases although seriously handicapped, are

compensated somewhat by the factor of youth. (7) Persons suffering from Heart Disease have a decided advantage over physically handicapped individuals as their handicap is non-apparent. While an employer requiring a medical examination will, as a rule, not hire a person with organic heart disease, generally such requirements are not made and so the cardiac case finds the job-getting relatively easier. However, because his disability is non-apparent he will often be required to perform tasks that are quite beyond his physical abilities. Constant over-work will soon make a minor cardiac deficiency into a major one. Employment in smaller industries is more desirable where a sympathetic employer will grant a rest period or not require the person to do heavy or hard tasks. (24, 15)

The case of a married man of thirty-six who had been a truck driver for a number of years before being afflicted by a heart condition, illustrates very well the limitations to which this disease subjects a man. He was forced to give up his regular job in favour of taxi driving, which in turn proved too arduous. Medical examination revealed that he should take a prolonged rest. Nevertheless he succeeded in obtaining a position as a guard which in turn was more than he could do. Finally he went to another city where he is reported

as acting in the capacity of an insurance adjustor. (8)

Another man of twenty-three who was in a general run-down condition suffered from Rheumatic Heart. The serious effects of this childhood malady is seen in his scholastic record in which he achieved only the seventh grade when he left school at the age of fifteen. In June of 1942, he was considered unemployable. Later however he was placed as a handy boy in a sewing machine agency. (8)

The following items are bases on the previous study and lead to a definite conclusion concerning the employability of persons suffering from heart disease. First, it has been shown in the tables that classify impaired individuals according to their disability, that 22.0 percent of the unemployables had a cardiac deficiency, while only 6.2 percent of the handicapped employables were in this category. Secondly, the age study revealed that 88 percent of all the unemployables were over forty-five years of age whereas only 27 percent of the employables were over forty-five. Thirdly, Arteriosclerosis is the most common type of heart disease beyond forty-five years of age (15) and persons disabled with this disease are practically unemployable. Lastly, the effect of age on the other forms of heart disease makes them more serious also. The obvious conclusion

to these numerous factors is that a person past forty-five who is suffering from a heart disease is practically unemployable.

Respiratory Diseases

Of the many Respiratory Diseases, Tuberculosis, Asthma and chronic Bronchitis most frequently present themselves either as causes of unemployability, or as sources of handicapped cases. A brief examination of each will outline the limits that these illnesses place upon employability.

Pulmonary Tuberculosis.

While Tuberculosis is an acute or chronic disease which may attack any organ of the body, Pulmonary Tuberculosis, Phthisis or Consumption as it is variously referred to, is the form of the malady which attacks the lung. The disease is caused by a bacteria (*Bacillus tuberculosis*) which is usually airborne so that it enters the lungs through the respiratory channels. For this reason Tuberculosis is to a large extent a family disease, although it is not hereditary. (25)

Pulmonary Tuberculosis is not confined to any particular age group. However a study in Pennsylvania indicates that Tuberculosis is a disease of youth and strikes individuals when they are in their most

economically productive years. (28) It is not unusual that the majority of young people especially in the cities, become infected before leaving high school. (25)

While careful studies of various communities have shown that one percent of the adult population have active Pulmonary Tuberculosis and another one percent have quiescent or arrested disease (25), our study in Hamilton revealed that 5.7 percent of the group of Unemployables had either the active or arrested form of the disease and that 2.5 percent of the Employable group were classed as handicapped because of arrested Tuberculosis.

It is imperative that the placement officer have a medical certificate from applicants with a history of Tuberculosis, because many people with active Pulmonary Tuberculosis may appear healthy, yet they may affect others. Persons complaining of continued hoarseness, rectal abscess, frequent or protracted colds, digestive disturbances, headaches, weight loss, insomnia, pains in the chest, nervousness and sweats, should be medically examined for possible cases of Tuberculosis. (25)

The only cure is prolonged rest, as Tuberculosis will recur, even after all active signs and symptoms have disappeared. Since it is doubtful that any type of this disease is curable in less than four years (25)

and as it is not unusual for the cure to extend over a longer period, many difficult problems arise in the placing of cured or arrested patients. In general, optimism is lacking. Such personality trends as inertia, oscillating moods, irritability, suggestability and daydreaming are prominent, particularly in women. Moreover, fear is practically universal, because Tuberculosis is a condition which involves financial worry, shifts of home relationships and segregation. Not only is there financial worry during the period of illness but there is also some prejudice among employers against employing a person who has had Tuberculosis. For example, a Philadelphia survey of handicapped workers showed that the crippled held the largest number of jobs and the Tuberculosis the least. (21, p.308-10)

The chances of recurrence of the disease after cure constitutes an important factor in employability. In a study conducted by the Metropolitan Life Insurance Company, it was found that those who had been to a Sanatorium in the minimal stage had fewer recurrences after they returned to work than those admitted in advanced stages. Sex played a part, as the females had fewer recurrences than the males. More specifically, in a five year period after completion of the cure in the minimal stage, about one-third of the men and one-fifth of the

women suffered a recurrence of the disease, and overcame it once more; and in the advanced stages over one-half of the men and almost one-third of the women suffered a recurrence and were cured again. However, on the fifth anniversary of completion of cure ninety percent of the minimal cases were at work or able to work as compared with seventy-five percent of the advanced cases. (23)

Some of the more specific problems may be summed up in the following manner:

- 1) The person will probably have no financial resources of his own to cooperate in a training program. Therefore, funds for his maintenance during re-training must be provided from other sources.
- 2) In the case of younger persons, there will be the need for overcoming basic educational deficiencies.
- 3) It is necessary that an incentive be provided for future effort because the individual will have lost, as likely as not, his desire to get ahead by being separated from his friends and family.
- 4) The individual must not be too abruptly faced with the problems of his future existence.
- 5) Most important of all the patient must not be thought of as one of a group, but as a disabled person who has certain backgrounds and certain possibilities. (17)

In addition to these difficulties there are a number of generalizations which limit the field of employment for post-tuberculous patients.

- 1) Only persons who are in the arrested or quiescent stage and have negative sputum are placeable in industry. (i.e. a medical report is absolutely necessary.)
- 2) From the point of view of the safety of the public, applicants should not be placed in jobs handling articles which are to be consumed or used by those who have not had the disease, or personal services such as barbering, dentistry, nursing, etc.
- 3) Jobs should be avoided which involve muscular strain, particularly on the chest, such as is required in carrying, lifting and pushing.
- 4) Positions which produce general fatigue, for instance, stair climbing, excessive walking, constant standing, working under nervous strain, and the like, are unsatisfactory.
- 5) Work should not be undertaken where the immediate job or those near it involve excessive fumes or marked odours.
- 6) The applicant should abstain from working in inorganic dust such as cement work, stone cutting, lens grinding, etc. However organic dust such as

flour, is not harmful itself.

- 7) Work in which the individual is exposed to extremes or sudden changes of temperature, drafts, bad air, inclement weather or marked vibration is unsuitable.
- 8) Since proper rest and recreation is important in preventing a recurrence of the disease, applicants should not be on jobs requiring overtime. In general, nine hours a day for shopworkers and eight hours a day for office workers should be the maximum. (5, p.740-2)

These qualifications certainly limit the sphere of employment opportunities but there are many skilled processes in the light trades and many light factory jobs which involve none of the hazards listed. Office work, professional, executive, or artistic work where the responsibilities are not over-taxing or where the work is not too rushing, is usually suitable. (5, p.740-2)

A more accurate appreciation of the placement problem can be seen by examining the case of a man of forty-two years of age who had served with the Canadian Army in France during 1915-1919. Upon discharge he became a 100% pensioner as he was suffering from Consumption. He had spent many years in a Sanatorium since that time and recently took a job as a guard at a Montreal munition's plant. As the night work was hard on his health he came to Hamilton where he worked for

one week at a meat packing establishment. Then followed a period of four and a half weeks when he could not be placed. Finally, he received a position as clerk in a large shoe repair establishment where the regular hours and light work proved very satisfactory. (8)

Bronchitis.

Bronchitis is the inflammation of the mucous membrane of the bronchial tubes due to colds or following a variety of other diseases. As a result of repeated attacks of acute Bronchitis, Chronic Bronchitis occurs, which often accompanies heart and pulmonary disorders, as well as disease of the kidney. It usually afflicts elderly individuals.

In some cases of Chronic Bronchitis the lining membrane of the bronchi becomes thinned out, and the tubes are dilated; in other instances the lining membrane may become thick and swollen. The symptoms that are usually observed are breathlessness during exercise, and a cough, varying in amount and severity, which brings up much thick sputum. Fever is rarely present. During warm weather the patient is usually free from cough, but each winter the cough becomes more severe and persistent. (9)

A married man of forty-nine who had served in France with the Canadian Army from 1914 to 1916, having

been discharged with a small pension illustrates the difficulty of placing a person with Chronic Bronchitis. He has such great difficulty during the early morning that it is almost impossible for him to work. From September of 1942 until February of 1944 he was referred to twenty-three different jobs of which he received only twelve. Previous to September of 1942 he had been a shell inspector and is now back with that firm working on the mid-day shift only. It is apparent that age has become a complicating factor as well. (8)

Asthma.

Asthma is a disease characterized by spasms of difficult breathing, and caused by an abnormal sensitivity to substances contained in foods that are consumed or in pollens and dusts that are inhaled. The disease tends to be hereditary and affects the person throughout his life unless he becomes desensitized to the particular cause of his distress.

Each person who suffers from Asthma is hypersensitive to one or more specific proteins. Some few cases are due to bronchial irritations and toxins which accompany Chronic Bronchitis, while others to bacterial origin and body processes. Some forms of Asthma are seasonal as they only appear when a particular pollen is in the air. The presence of offending substances

irritates the nerve endings in the mucous membrane of the respiratory tract. This causes spasmodic contraction of the small bronchioles of the lungs, thus impeding the breathing, and the patient is forced to breathe more deeply to compensate for it. The attack is accompanied by intermittent coughing that carries up mucous which, in turn, relieves the congestion. (2) It should be noted however, that a clear cut distinction cannot always be made between Asthma and a Heart Condition as the overt symptoms of dyspnea or shortness of breath is common to both.

The limiting effect of Asthma especially when complicated by other factors such as old age and heart trouble is very severe indeed. The case of a trade electrician who is sixty-two years of age bears this out. In October of 1937 he was forced to stop work because of a severe attack of Asthma. As the lungs were seriously affected he was still unable to work in 1940. In fact, he had been classified as a one hundred percent disability. In spite of his serious condition he did seek work from September of 1942 until February of 1944. During this time he was referred to twenty-one jobs but he was successfully placed only eight times. For two months he operated an elevator in a metal industry, which constituted the longest

period that he held a job continuously. In this instance he was forced to leave when he came up for routine examination before the plant doctor. This chap had an exceptionally clean appearance and he never drank. Nevertheless a combination of Asthma and old age has made him, for all intent and purposes, unemployable. (8)

In general most persons suffering from Asthma or Bronchitis should avoid sudden changes of temperature, dust, fumes and poorly ventilated places, exposure to dampness or cold and excessive fatigue. Because of the overt symptoms personal contact work is difficult. When the condition is caused by sensitivity to a known substance, any occupation requiring contact with that substance should be avoided. (5, p. 740-2)

Blindness

There has been no standard definition of blindness established, simply because the particular field of endeavour in which the definition may be used brings into consideration different factors.

The Canadian Institute for the Blind proposes that for all practical purposes it is necessary to class persons with perception of light and those who have up to 20/200 after correction with glasses as blind. That is to say that individuals whose sight is so poor that

they can only see at twenty feet what the normal eye can see at two hundred are so definitely handicapped that they cannot be expected to do work requiring the aid of vision. (1)

The American Medical Association officially accepts the following definitions:

- 1) Absolute Blindness: Inability to perceive light.
- 2) Economic Blindness: Inability to do any kind of work for which sight is essential.
- 3) Vocational Blindness: Impairment of vision which makes it impossible for a person to do work which he had formerly done to earn a living.
- 4) Educational Blindness: Such loss of sight as makes it difficult, dangerous or impossible to learn by the methods that are commonly used in schools. With vision in the better eye of less than 20/70 and better than 20/200 sight conservation classes are recommended. With sight in the better eye after correction of less than 20/200 admission to the school for the blind is suggested. (11, p.116-7)

Some authorities state that a person with 20/70 vision is considered industrially blind. Certainly

when defective vision has deteriorated to this extent the individual begins to become an employment handicap. (5, p.749) However the field of vision is also significant. The normal peripheral field is approximately 184 degrees and when, due to loss of one eye or certain eye defects, this field is reduced to 38 percent or less with correction the individual must be classified as industrially blind. Very frequently a person who has subnormal efficiency at distant points of twenty feet or more will show ample efficiency at near points of thirteen to twenty inches. (5, p.750)

It is only too evident that an adequate and accurate, functional definition of blindness is very sadly needed.

As these definitions are at best only a general classification, it is extremely difficult to determine the incidence of blindness. What available evidence there is would suggest that there is approximately one blind person in every thousand in the United States (21, p.208), which is closely approximated in Canada. It was found in our Hamilton study of the causes of Employability that among the Unemployables 10.6 percent could be classed as suffering from economic blindness. Fifty percent of these were totally blind. In the group of handicaps that were employable 9.0 percent suffered

from defective vision but only 0.3 percent of these were totally blind. It will be seen, therefore, that those with partial sight have an enormous advantage over those without.

It is extremely difficult in the absence of reliable statistics, to determine the most prevalent causes of loss of vision. Generally speaking, over one-half of all blindness is caused by disease. Nearly three-quarters of this is due to diseases which affect the eye only, while the remainder results from general diseases of the whole organism. Almost a fifth of all blindness occurs in accidents while numerous indefinite causes account for the rest. Although the authorities do not agree on the actual incidence of these various causes, there is general concurrence in the belief that the majority of blindness is absolutely unnecessary because, with the advances of medical science, its cause may be prevented. (11, p.132-4)

Of the various forms of eye disease Cataract is the most prevalent. It occurs chiefly in two periods: infancy and later middle-life. (22) When the capsule surrounding the lens is unable to act as a filter keeping out undesirable elements of the aqueous humor, a coagulation of the otherwise transparent lens fibres takes place. If the capsule has been mechanically broken

the resulting condition is known as Traumatic Cataract. If the capsule is deficient in embryonic life so that proper filtration does not take place the child may be born with the opaque lens of Congenital Cataract. The condition known as Senile Cataract occurs in adult life when the capsule gradually becomes less permeable so that the nutrition of the lens is interfered with. This deficiency causes the opacity to grow gradually from the margins towards the center of the lens. The only treatment for cataract is surgical which is usually highly successful. (12)

Another common cause of loss of vision occurs from inflammatory and degenerative diseases affecting the two inner lining structures; i.e. the retina or nervous lining, and the choroid or the middle coat containing the blood vessels. It can generally be traced to a diseased condition of the whole organism, such as syphilis, diabetes or kidney trouble. In some instances, infections at the roots of the teeth or around tonsils may be the causative factor; while toxic disturbances from retained waste products may also be the source of the disorder. Each of these eye conditions must be traced to its origin and, in addition to local measures, treatment must aim to relieve or remove the causal factor. (22)

Atrophy of the optic nerve is an important source of blindness. The majority of such cases can be traced to syphilis while a few arise from injury to the optic nerve or pressure from a brain tumor or brain abscess.

Another disease of the eye from which a large proportion of blindness is due is Glaucoma, which is manifested by an increased pressure in the eye-ball. This is one disease the cause of which is not known, so that there is no hope of preventing it. However with careful treatment and surgery about 70 percent of the cases regain useful vision. (13)

Trachoma is another serious, widespread disease that affects primarily the lining membrane of the eyelids. It is fairly certain that it is caused by a micro-organism, and the contagious nature of the disease is well recognized. A long-continued and persistent treatment is necessary to control the disease and to avoid the dangerous consequences. Usually two years are required to bring the malady under control and even then acute recurrences are not unusual. (14)

Accidents as a cause of blindness are increasing in importance. Mechanics and carpenters are liable to be blinded by piercing and cutting instruments; painters, by lead poisoning; iron and steel operatives, by

exposure to heat and to dust particles; brick and stone masons, by foreign substances in the eye. Cooks and laundry workers may develop cataract caused by exposure to heat. Teachers often suffer from glaucoma and detachment of the retina, while dressmakers and seamstresses frequently experience strained eyes and glaucoma.

(11, p.135-6)

The age factor complicates the placement problem. Of the 12,500 registered blind people of all ages in Canada at the present time, one-third are seventy years of age and over. More than eighty percent of this group lost their sight in adult life. (1) In the United States it is believed that practically all the blind are over fifteen years of age, but 60 percent of these are over fifty-five, while only 18 percent are between the ages of fifteen and forty-five. (11, p155-6) It will be seen therefore, that it was no accident that blindness was a serious factor in determining Employability in our Hamilton study, chiefly because it is usually complicated with age, or sickness. In fact, approximately fifty percent of the blind who have lost their sight in Canada during adult life did so because of organic or systemic conditions which are in themselves a serious, if not the most important, disabling factor. Brain tumours or lesions, severe arthritis, diabetes, kidney trouble,

tuberculosis, heart trouble are prominent examples; while mental disorders and low intelligence with the consequent lack of imagination and perseverance are not to be neglected as important factors in Employability. (1)

It is generally conceded that with the blind there is no increased sensitivity of the remaining faculties to compensate for the loss of sight. Absence of vision simply makes it necessary for the blind person to make better use of his remaining senses. This superior use is due to education under the spur of necessity, and is not the free gift of compensation. In a like manner there is no compensatory superiority in the memory of a blind person. (11, p.139) By practice he may become much more skilful than the seeing in the use of his remaining senses so that obstacles may be sensed by echoes, changes in temperature, odours, and currents of air. (11, p.140) Hence he may develop the so-called "obstacle sense", a prodigious memory for certain types of material, recognition of people by their voice alone, and interpretation of their moods and attitudes. (21, p.234)

Blindness has no effect on the intelligence. The percentage of high I.Q.'s differs little from that found among the seeing. There is however a larger proportion of blind people with low Intelligence Quotients. (21, p.219) This is the case because blindness and

feeble-mindedness are often the result of some underlying constitutional defect. (11, p.140)

The problem of the employment, placement, and vocational guidance of the blind is a complex and difficult one. In the United States it is estimated that only 10-20 percent of the blind are employable. (11, p.155) This is complicated by the age-old prejudice concerning the helplessness of the sightless, which is in no way justified in respect to the mentally and physically capable blind. Placement of a blind person must be done by experienced placement officers as an employer cannot be expected to know where a blind person could be utilized to advantage. The successful work of the Canadian National Institute for the Blind has done much to arouse interest in the latent possibilities of the sightless, as well as actual training programs fitting the blind for specific jobs. (26)

When the vision with glasses is over 20/70 there is usually no employment handicap. However, where the degree of vision is less than 20/70 the type of work that can be undertaken varies with the efficiency of the vision with maximum correction. In general, such persons must avoid all occupations requiring close work on small objects, reading of small print, or even constant use of the eyes under the most favourable

conditions. Nevertheless, they can do all kinds of assembling and other manufacturing processes on large objects, mercantile work, outside selling, messenger work, dictaphone operating, and many other jobs. (5, p.750)

If the eye trouble consists of imperfect functioning of the extrinsic muscles, which control the movements of the eye, the individual must avoid jobs which require close work, or work involving a rapid shifting of vision from one point to another, such as, checking of ledgers, editing, receptionist work connected with typing, filing, and receiving office or plant visitors. (5, p.751)

Persons with less than 20/200 vision and the totally blind have fewer opportunities open to them. Selling insurance, music, handicraft work, dictaphone operating, piano tuning, operating news stands, assembling of metal goods, candy packing and sausage making are examples of occupations in which they have been successful. Mass production methods have increased the opportunities open to the blind and the near-blind, because of the extent to which production operations have been broken down, simplified and routinized. (5, p.751)

It is often possible that a blind person can carry on an inspection job requiring a highly developed sense of touch or smell much better than a person with normal sight who has never had to develop his other senses.

(5, p.751)

Individuals with a progressive eye disability cannot use their eyes to maximum capacity and the assistance of an Oculist or Ophthalmologist should be obtained in making a placement. (5, p.751)

Persons who have lost the sight of one eye should not be placed at work in which a restricted field of vision might be a hazard as would be the case in crane operating or truck driving. Moreover, they should not be expected to work where there is danger of flying particles which might affect the good eye. (5, p.751)

The placing of a blind individual is perhaps one of the most difficult types of placements to make. A young man of twenty-eight who had the benefit of guiding vision in both eyes had succeeded in receiving his B. A. from a western university. However his first job consisted in operating a degreasing machine in a shell plant. This was not considered a good placement as this chap was obviously capable of more difficult tasks. However as the Selective Service moves progressively forward better placements will be possible. (8)

The placement of a blind man of fifty-three years of age is commendable. Especially when this chap had been out of work for fifteen years following an accident in which he had lost his sight. Previously, he had been a lineman for twenty-three years. At present a tobacco

company employs him to "leaf" tobacco, which consists in removing the center rib from the leaf as it passes through the drying process. (8)

Other Physical Disabilities

According to the National Institute of Health in the United States, 61 percent of the physical impairments are caused by accidents, 33 percent are caused by disease, while 6 percent are congenital. (27)

The diseases which most often create physical impairments are: Arthritis, Osteomyelitis, Thrombo Angitis, Tuberculosis of the Bone, Infantile Paralysis, Apoplexy and Cellulitis. (5, p.736)

Of these diseases, Arthritis deserves special consideration as it was found in our Hamilton study that 8.5 percent of the group of unemployables were suffering from this disease and were unemployable because of it. On the other hand only 4.1 percent of the Handicapped group were inflicted with Arthritis.

Moreover, a United States Government study in 1937, shows that there were 6,850,000 cases of Rheumatism in the U. S. which causes a loss of 97,200,000 days from work. There were only a little more than half as many cases of Heart Disease, one-tenth as many cases of all forms of Tuberculosis. Only nervous and mental disorders

caused a larger number of days to be lost from work. (19)

Arthritis or Chronic Rheumatism may be classified into five groups.

- 1) Infectious cases, which are definitely caused by a specific micro-organism such as pneumococcic arthritis or tuberculous arthritis. However, these forms will seldom present themselves to the placement officer.
- 2) Probably infectious cases such as the Arthritis which accompanies Rheumatic Fever. It is thought that bacteria is the cause. Another probably infectious form of the disease is Rheumatoid Arthritis, the specific cause of which has not been determined. It is characterized in its early stages by transitory pain, stiffness and swelling of the joints and in its later stages by deformities and ankylosis.
- 3) Degenerative joint disease or Osteoarthritis is characterized by degenerative changes of the cartilage of the joints, accompanied sooner or later by overgrowth of bone at various places, especially at the margins of the joints.
- 4) Arthritis resulting from physical injury to the joint by trauma.
- 5) Gouty arthritis. (19)

In general, Arthritis occurs in nearly all climates

and it affects chiefly persons in middle-life. Victims of the disease should not work in damp places. (5, p.736)

A man of forty-four years of age who had for ten years been the care-taker of an armouries illustrates the effect of Arthritis as he was unable to do any work at all for seven years. Recently he recovered sufficiently to take the position of janitor for a local transport company. (8)

Osteomyelitis is a disease which causes destruction of the bone. As there is always the danger of the disease recurring, a medical certificate should be required. Whenever possible, open-air work should be obtained. (5, p.736)

Thrombo Angiitis consists in clotting of the blood in the arteries and veins. Tuberculosis of the bone, particularly that of the spine has work limitations similar to Pulmonary Tuberculosis. As both Thrombo Angiitis and T. B. of the bone are more or less progressive, a medical certificate should be obtained. (5, p.736)

A veteran of two years service in the Canadian Army during the present war who is thirty-eight years of age was discharged as medically unfit because of Tuberculosis of the bone which had required a spinal graft. He spent one year convalescing in a Sanatorium. As he could not bend over, he took a job operating a punch press which allowed him to sit down. However this case illustrates

very clearly how other factors are often present which complicate the placement problem. This man has only had a fourth grade public school education. There is much evidence to suggest that he is mentally dull as he has had several jobs during a three month period at the end of which he returned to the firm which had first employed him. (8)

There are two chief forms of Paralysis. Flaccid Paralysis occurs when the muscles relax and waste away. It arises from an injury to the lower motor neurons. Spastic Paralysis is characterized by a contraction and rigidity of the muscles with only moderate wasting, and occurs when the upper motor neurons have been damaged. Infantile Paralysis or Poliomyelitis is an acute infection of the gray matter of the spinal cord. It affects especially children and the paralysis which results is of the flaccid type. Injuries, such as a fracture that cause pressure on the nerves or on the spinal cord, produce paralysis. A hemorrhage into the brain or Apoplexy will cause paralysis on the side of the body, opposite to that part of the brain affected by the bleeding. Spastic paralysis often develops by an injury to the brain during birth. (10)

Our study in Hamilton revealed that Paralysis is generally not a serious cause of Unemployability as only

4.9 percent of this group were disabled in this manner. However it is an important factor in developing limitations as 6.5 percent of the Employable Handicapped had some form of this disorder.

An illustration of the successful placement of a Spastic Paralysis is seen in the case of a young chap of sixteen whose right hand and leg were affected. His job consisted of sweeping in a small factory and occasionally baling paper in which case assistance was given him. The manager was so well pleased with the lad that he requested the Selective Service to return him to his employment when a minor cut had forced him to take compensation for a short time. (8)

It should be quite clear that a different definition of employability will have to be made for each and every individual depending upon his limitations. This is particularly true of leg and arm disabilities. However a few generalizations can be made.

Usually a man using an artificial appliance has a wider range of employment possibilities than a man with crutches. However the point of amputation is exceedingly important. A loss of the lower leg is not near as disabling as an amputation of part or all of the upper leg. Not only is the skilful use of the appliance an important factor in employability, but also the sensitiveness of

the stump, whether it chafes or gets irritated easily, restricts considerably the activity of the individual. For this reason, dampness and high temperatures should be avoided as they will increase the discomfort. Work near dangerous machinery or on slippery floors should be abstained from. (5, p.738) As is the case of Fallen Arches and Varicose veins, activities requiring strength, endurance, agility, dexterity, or coordinated movements of both legs to any marked degree are unsuitable. (4)

Moreover, employability is affected differently depending upon the leg that is injured. For example, a man who has lost his right foot has difficulty in operating many power-presses as the majority of them are put in motion by the right foot. In some instances, he may be unable to operate the press at all, because many "kick pedals" require a sense of "feel". (8)

Such impairments as these do not create a difficult placement problem however. There is the case of the man of fifty-two who had lost his right foot. For fourteen years he had successfully run his own shoe repair shop when he was forced to give it up because of ill health. Having recovered he is now employed in a large shoe repaired establishment. This man presented no placement problem as he had a trade. Another example of a successful placement is that of a man who has lost one leg and

who gets about with the aid of crutches. He sits down at his work which consists of gluing bristles into wooden handles. His employer reports that he is doing good work, that he is an exceedingly responsible workman and that he is learning the job as quickly as any able-bodied person could be expected to do it. Perhaps the fact that a wife and family is dependent upon him is an important factor in his success. (8)

Arm and hand disabilities tend to be more serious than those affecting the legs, because artificial limbs cannot successfully acquire the high degree of dexterity in the movements of the fingers or any degree of strength. Loss of the thumb eliminates the power to pick up, hold, or manipulate small articles, although some cylindrical grasp is retained. It is obvious, therefore, that the loss or complete impairment of one arm even when fitted with an appliance cannot perform duties which require two hands. However the loss of the right hand or arm need not be more serious than the left because of a developed compensating use of the left hand. (5, p.739)

The following cases indicate some of the unfortunate personal aspects of such impairments. A young chap of eighteen years of age who had completed two years of High School had lost his left arm above the elbow due to a fall from a tree as a boy. He had worked nine months

as an attendant at a service station when he was forced to leave because of the restrictions on gasoline. On applying to the Selective Service he was placed as a sweeper. This is a case where a training plan by the government would have paid high dividends as this lad obviously had capabilities which should have been developed. A similar example is found in the case of a man who had one hand cut off at the wrist. He had never had a job before he was nineteen years of age and yet his employer spoke of him as always being in high spirits and as one of the most capable of workmen. (8)

Those disabled by mechanical impairments have perhaps gained the most from the job analysis of the local industries by the Hamilton Office of the National Selective Service, as particular attention is paid to the functional requirements. Table VII is an excerpt from Tables IV and VI. It indicates that most mechanical deficiencies are not usually causes of unemployability. By continued education of management to the potentialities of these individuals and by improved techniques of vocational counseling, fewer of them will be out of work.

Table VII
Mechanical Factors in Employability.

Disability	Percent of Handicapped Employables	Percent of Unemployables
Foot and Leg Injuries	11.2	4.1
Amputations	9.6	.4
Back Injuries	5.3	2.9
Hand and Arm Injuries	4.0	--- [†]
(† Figure not available)		

Mental Ailments

Already it is quite evident that the problem of determining the nature of employability is immense. But, if a study of the physical disabilities does not produce a lucid conclusion, one can hardly expect an examination of the more complicated and less tangible neurotic impairments to clear up the issue appreciably. Therefore, a study of abnormal mental conditions can only indicate another complex aspect of employability. Consequently, a brief examination of only the most prevalent ailments has been undertaken. It includes such disorders as: Epilepsy, Nervousness, Anxiety Neurosis, Reactive Depressive, Phobia, Obsession, Hysteria, Hypochondriasis.

Epilepsy.

Epilepsy may be thought of either as chronic disease of the nervous system which is characterized by periodically recurring convulsions, lapses, or abnormal mental states occurring in an individual (20), or as a symptom in which there are recurring lapses of consciousness with or without convulsive manifestations. (21, p.296) In other words, Epilepsy may be defined as a tendency to periodic, involuntary neuronal explosions or "brain storms", from the physiological point of view. Whereas for the patient, it is a state of continuing dread interrupted by recurring attacks of involuntary behavior. (6, p.198)

Epilepsy is a chronic and usually progressive disease, which involves only the nervous system. However, convulsions arising from a definite injury or disease process of the brain, such as brain hemorrhage, skull fracture, brain tumor, meningitis, encephalitis, etc., or seizures arising from hysteria are excluded. Moreover, it should be noted that all convulsions are not epileptic nor do all epileptics have convulsions. (20)

There are three types of seizures that are common. In the Grand Mal there is a loss of consciousness and an involuntary contraction of all the muscles of the body, which causes the patient to fall. This is

followed by the clonic phase. In the Petit Mal, consciousness is lost for only a short time. The individual may simply pause at what he is doing, and then go on as if nothing had happened. In the Epileptic Equivalents, the person may act with apparent intelligence or he may seem confused. Nothing is remembered of what happened during any form of the attack. (21, p.297-8)

It is generally recognized that Epilepsy may be due to various causes and may take many different forms. (21, p.298) The disease appears to be hereditary, as it is usually seen in relatives that are removed by one generation, but it is seldom present in the parents of the patient. An epileptic person is often temperamental, irritable, excitable, and emotionally unstable, although he is not necessarily mentally retarded. (20) A group of epileptics are similar to the general population in range of intelligence, but their mean intelligence quotient is lower than that of the general population. There is not reason to suppose that such undesirable behavior as lying, stealing, fighting, sexual indecency, cruelty and destructiveness will inevitably occur in epileptics. In fact, such personality disorders are often found in non-epileptic persons with a poor background and training. (21, p.305)

The epileptic presents a major placement problem.

Not only must he seek out an employer who is sympathetic to his deficiency but he must also find a job that does not bring him into the presence of machinery, lest he inflict injury on himself or others in the event of an attack.

The case of a single man of twenty-seven years of age shows very clearly the nature of the problem presented by Epilepsy. From February of 1942 until February of 1943 this chap had been referred to twenty-two jobs of which he received only five. None of these was held for any length of time as the arrival of an epileptic fit was accompanied by the loss of his position. In order to ward off the attacks, he was taking drugs which put him in a continual stupor. The natural result was that no person would hire him. Finally through the close cooperation of the Selective Service Office and a sympathetic employer he gained steady work. On two occasions, the manager was unable to cope successfully with the man's attitude towards his job and the assistance of the Placement Officer was requested. It was only with the close cooperation and sympathy of the employer and the Selective Service Officer that this case can be classed as a successful placement. In fact, during the year that the man has worked at this plant,

he has put on weight; has had no seizures; has, in large measure, better health; and most important, has become satisfied with his job because it gives him security. (8)

Just as Epilepsy is a neuronal disorder, the exact nature and cause of which has not been finally determined, so also are there other abnormal mental conditions, which are not clearly defined or classified. This lack of knowledge exists because of the intrinsic complexity of the disorders, symptoms or diseases, as they are variously called. In fact, they may arise from one cause, many different causes, or a combination of causes. Moreover, they are inextricably bound up with the personality of the individual. Consequently persons complaining of, or indicating that they may have, one or more of the following complaints present a difficult case to a trained Psychiatrist. For the unskilled placement officer the problem is magnified many times.

Nervousness.

Nervousness is the popular word applied to a long list of symptoms, some of which everybody has experienced at one time or another when put under emotional stress. The stresses that precipitate the symptoms are usually social or interpersonal, for instance: "appearing in public". The symptoms are usually due to excessive

functioning of one or more divisions of the autonomic nervous system, which may bring about, for example: rapid heart rate, pallor or flushing, sweating, laboured breathing, dry mouth, loss of appetite, desire to urinate or defecate. These symptoms are accepted by most people as annoying but not abnormal; in some they may become incapacitating. This structural deficiency is probably inherited, although the physical condition of the individual may play an important part. (6, p.212-13)

Anxiety Neurosis.

Anxiety Neurosis takes the form of sudden attacks associated with palpitation, hyperventilation, sweating, trembling, pain about the heart, tingling in the extremities, and even convulsions. Between attacks the person is usually fairly well adjusted, able to work and get along at home, but there is usually a certain amount of chronic anxiety and nervousness. The condition arises out of a disorder of the personality such as a situation of emotional stress which the individual does not appreciate or tries to overlook. A situation of this nature may arise in relation to sexual maladjustment, occupational difficulties, or a sort of conditioned reflex. (6, p.214)

Reactive Depression.

A neurotic condition known as Reactive Depression arises when because of a trivial loss of money, position,

or friends, a person remains down-hearted and depressed for a disproportional length of time. Such psychological mechanisms as feelings of inferiority and loneliness may keep the individual from throwing off his depression. While personality disorders are the chief cause, constitutional and medical factors may also play a part. (6, p.215)

A single man of thirty-two years of age who had served for three months during the present war and who had gone as far as the ninth grade in school illustrates this type of neurotic condition. From September of 1943 until February of 1944 he was referred to thirty-one jobs of which he received sixteen. He was discharged from one firm because he would not refrain from annoying the women in the plant. One employer reported that sometimes he was up in the clouds and on other occasions he was down in the depths. The man himself admitted that he was "one day depressed and the next day impressed". This making up of phrases indicates that he was an advanced neurotic. He had spent a number of years in England and Ireland as a hobo and had also served in the merchant marine. He had always had great difficulty in holding jobs and at present is rapidly becoming unemployable. (8)

Phobias.

Phobias do not represent a distinct entity. They

appear most clearly in certain anxiety neuroses. The person suffering from this type of symptom is afraid of certain special situations, for instance: high places, closed spaces, wide spaces, water, or a fear of contracting syphilis. Although the fear may seem to him unreasonable he keeps away because he knows that it will frighten him automatically. Naturally this narrows his social activities and increases the problem of finding suitable employment. (6, p.215)

Obsessions.

Obsessions are repetitive thoughts that come into consciousness and cannot be suppressed. The thoughts may be hostile or sexual or doubting or apparently meaningless; and they may interfere greatly with work and happiness. A person is said to be suffering from compulsion, if he acts on the dictation of these thoughts. (6, p.216)

An excellent example of this malady is seen in the case of an unmarried man of thirty-two years of age who was a graduate of a secondary school. He had an excellent family background and his father was an outstanding engineer. From December of 1941 until December of 1943 he served in the R.C.N.V.R. being discharged as a Psychotic. Having been out of work for six weeks, he reported to the Hamilton Selective Service Office in

a dishevelled and dirty condition. He had supported himself during this period with the interest on stocks in his father's company. In all, he had spent about \$400.00, most of it on shows. In addition he carried a large diary filled with many disconnected observations. He complained of being obsessed with sexual and religious ideas. He was placed in a routine job which, in itself, was evidence of his mental deterioration since he had left High School. He was encouraged to report back to the Selective Service at regular intervals. After being absent from his job for several days he excused his non-attendance on the grounds that his mind had gone to Toronto and that he had to go after it. Later he complained to the Selective Service Officer that his mind was in a whirl and he asked for help. A Psychiatrist is now treating him and he is continuing on at his work. His medical report shows that he is suffering from Obsessions which have not as yet become Psychotic. He stands a fair chance of recovery. (8)

Hysteria.

The symptoms are the discovery of some seemingly physical disorder which has no physical causation, for example: deafness without impairment of the conductive or nervous apparatus of the ear; a bad limp without apparent tenderness, inflammation or loss of articulation.

It can be explained as a conversion of psychological frustration into an overt muscular, sensory or mental loss for the period of the attack. It is caused by a personality disorder in which heredity, constitutional and medical factors play a part. Frequently, it is a method of running away from a pressing problem.

(8; 6, p.216)

Hypochondriasis.

Hypochondriacal describes a group of introverted persons whose main interest in life seems to revolve about their viscera. The person cannot be convinced that certain organs are not diseased or are functioning improperly. Although his mood does not show true depression there is an everpresent sense of gloom about him. Obviously, the effectiveness of the individual is greatly reduced. (6, p.217)

The following is the case of a young girl of twenty-one who had been an exceptionally clever student in school but who had suffered a nervous breakdown during her Christmas Examinations three years before she came to the attention of the Hamilton Association of Occupational Therapy. During these three years she had stayed at home not stirring from the house, and in fact, moving as little as possible. She was confident that she was suffering from a weak heart, because she thought

that she could feel a tenseness in her chest when she exerted herself. Naturally, she had lost all her friends, so that now, her sole companion was her Mother. The social worker who had been to the home previously felt that the condition was partly caused by the fact that the Mother had always played favourite to the son, and now the girl was attracting attention to herself in this morbid manner. Treatment started in the home where she was encouraged to make things for herself. Although the treatment started in September, the girl could not be encouraged to leave the house for a short walk until the following May, at which time she walked a whole block. By June she had taken several walks and even gone to see a moving picture. In August, she came to the workshop of the Association to do weaving and typing. In November, it was suggested that she take a part time job. However, at that time the only opening that seemed at all suitable was full-time employment making radio parts. The daily hours were from eight to six. Without the slightest hesitation she accepted this position and has been working there ever since. (16)

This case illustrates clearly the complications that may arise due to Hypochondriasis. Moreover, it speaks well of the valuable work that the Hamilton Occupational Therapy Center is performing.

Another vast and allied topic that vitally concerns

employability has been scarcely indicated. The psychological unemployed are chronically without a job whether times are good or bad. These are often endowed with many talents and yet they cannot or will not remain regularly at work. While those suffering from specific mental ailment comprise a good portion of those classified in the tables as neurotic, a number who have failed to mature emotionally must also be included. Undoubtedly, this field can only be analysed by the highly trained psychiatrist.

Summary.

At the outset, the relative importance of various maladies as causes of unemployment was determined. Thus the major factors creating unemployability were isolated and discussed. But unfortunately, useful as this procedure may be in a limited field, it is inadequate in its approach towards a definitive conclusion. Seldom does one ailment act alone to bring on a disability and if it does, the issue is soon clouded with other complex factors of psychological or mental origin. Hence, a satisfactory conclusion regarding the nature of employability is almost unattainable. Nevertheless, a few generalizations were drawn from this study.

- 1) The serious effect of heart disease brings on unemployability shortly after the forty-fifth year.

- 2) Mechanical impairments such as amputations, leg and arm injuries, need not be a serious cause of unemployment.
- 3) A medical, psychological and psychiatric background is needed to evaluate fully the complex nature of the various cases.
- 4) It is evident that each individual case must be treated separately.

BIBLIOGRAPHY

Chapter IV

- (1) Baker, E. A.
"Employability of the Blind", Proceedings, Conference on the Vocational Rehabilitation of the Physically Handicapped. Employment Service and Unemployment Insurance Branch, Dept. of Labour (Dominion), King Edward Hotel, Toronto. Sept. 27, 28, 29, 1943. pp.48-52.

- (2) Balyeat, Ray Morton,
"Asthma", The National Encyclopedia, New York: P. F. Collier & Son Corp. Vol. I, p.426. (Balyeat, Ray Morton, A.B., B.S., A.M., M.D. Instructor in Medicine and Lecturer on Allergic Diseases, University of Oklahoma.)

- (3) Benjamin, Julien E.
"Rehabilitation for Those with Heart Disease." National Rehabilitation News. Vol. VIII. No. 3, pp. 10-11.

- (4) Bureau of Employment Security.
"Occupations in the Manufacture of Ammunitions and Explosives Suitable for the Employment of the Physically Handicapped". Washington: Federal Security Agency, Social Security Board, Bureau of Employment Security, Employment Service Division, Occupational Analysis Section. (March 10, 1942) Job Family Series, No. H - 3 (Revised). p.2.

- (5) Bureau of Employment Security.
Placement of Physically Handicapped Applicants Through Public Employment Offices. Washington: Federal Security Agency, Social Security Board, Bureau of Employment Security, State Operations Bulletin # 10, Part VII. (Feb. 1941)

- (6) Cobb, Stanley
Foundations of Neuropsychiatry.
 Baltimore: The Williams & Wilkins Co. 1941,
 231 p.

- (7) Corpening, H. C., Thomas, R. E.
 "Determination of the Work Capacity of Cardiac
 Cases". National Rehabilitation News. Vol.
 VIII, No. 3. pp. 12-19.

- (8) Cox, K. J.
 "Miniature Case History", Employment and Selec-
 tive Service Office, Hamilton, Ontario.

- (9) Fishbein, William I.
 "Bronchitis", The National Encyclopedia.
 New York: P. F. Collier & Son Corp. Vol. II,
 pp. 267-268. (William I. Fishbein, B.S., M.D.,
 Assistant Health Editor, "The Chicago Daily
 News"; School Physician, The Laboratory Schools,
 University of Chicago.)

- (10) Fishbein, William I.
 "Paralysis"
Ibid, Vol. VII, pp. 524-525.

- (11) Frampton, M. E., & Rowell, H. G.
Education of the Handicapped; Volume Two
Problems. Yonkers-on-Hudson, New York: World
 Book Company, 1940, Vol. II, 440 p. (Edited by
 Frampton & Rowell.)

- (12) Gradle, H. S.
 "Eye, Affections of". The National Encyclopedia
 New York: P. F. Collier & Son Corp. 1938, Vol.
 IV, pp. 230-234. (Gradle, H. S., A.B., M.D.,
 Extra-Mural Professor of Ophthalmology,
 Northwestern University.)

- (13) Gradle, H. S.
 "Glaucoma"
Ibid, Vol. IV, p. 598.

- (14) Gradle, H. S.
 "Trachoma"
 Ibid, Vol. X, p. 77.

- (15) Harmon, L. B.
 "Problems in the Rehabilitation of Cardiac Cases", National Rehabilitation News, VIII, No. 3 (May 1942) pp. 5-9.

- (16) Mailer, (Mrs.) Charles H.
 "Case History", Hamilton Association of Occupational Therapy. Hamilton, Ontario.

- (17) Means, M. T.
 "General Problems in the Vocational Adjustment of the Tuberculous". National Rehabilitation News. Vol. X, No. 1, (Jan. 1942) p. 20-21.

- (18) Paradee, Harold, E.B.
 "Heart Disease", The National Encyclopedia. New York: P. F. Collier & Son Corp. 1938, Vol. V, pp. 201-203. (Pardee, Harold, E.B., A.B., M.D., Assistant Professor of Clinical Medicine, Cornell University.)

- (19) Perrite, L. G.
 "Arthritis", National Rehabilitation News. Vol. IX, No. 3, April 1943. pp. 11-12.

- (20) Peterman, M. G.
 "Epilepsy", The National Encyclopedia. New York: P. F. Collier & Son Corp. 1938, Vol. IV, pp. 169-170. (Peterman, M. G., Sc.B., A.M., M.D., Director of the Pediatric Department, Marquette University.)

- (21) Pinter, R.; Eisenson, J.; Stanton, M.
 The Psychology of the Physically Handicapped. New York: F. S. Crofts & Co. 1941, 391 p.

- (22) Royer, B. F.
 "Blindness, Medical Aspects of", The National Encyclopedia. New York: P. F. Collier & Son Corp. 1938, Vol. II, pp. 150-152. (Royer, B. F., M.D., D.Sc., Medical Director, National Society for the Prevention of Blindness.)
- (23) Stephens, M. C.
 "Follow-up of 1,041 Tuberculosis Patients" (Condensed from the American Review of Tuberculosis, Oct. 1941.) National Rehabilitation News. Vol. X, No. 1, (Jan. 1942) p. 23-25.
- (24) Tyrrell, W. G.
Interview. Veteran's Welfare Office, (Hamilton) Dept. of Pensions and National Health.
- (25) Webb, Gerald B.
 "Tuberculosis", The National Encyclopedia. New York: P. F. Collier & Son Corp. Vol. X, pp. 124-125. (Gerald B. Webb, M.D., F.A.C.P., Director of the Colorado Foundation for Research in Tuberculosis; Consulting Physician to Cragmor, Glocker and Methodist Sanatoria, Colorado Springs.)
- (26) Williamson, L. G.
 "Specialized Employment Service for the Blind". Proceeding, Conference on the Vocational Rehabilitation of the Physically Handicapped. Employment Service and Unemployment Insurance Branch, Can. Dept. of Labour. King Edward Hotel, Toronto, Sept. 27-29, 1943. pp. 52-54.
- (27)
 "Employability of the Handicapped."
Monthly Labour Review. Nov. 1940, pp. 1123-1124.
- (28)
 "Cooperative Project for Rehabilitation of the Tuberculous in Pennsylvania". National Rehabilitation News, Vol. VIII, No. 1, (Jan. 1942) p. 16.

CHAPTER V

SUMMARY AND CONCLUSIONS

The Canadian Government has attempted to obtain full mobilization of both population and resources in order that the prosecution of the war may be efficient and complete. The Orders-in-Council that have striven towards this goal created several practical problems. Two of these have attracted out attention. 1) What constitutes employability? 2) Upon whom falls the tremendous responsibility of determining when a man is unemployable?

In Chapter I, the foundation necessary for studying these problems was laid. Hence a fuller realization of the complexity of Employability was obtained by a brief examination of the causes of unemployment. As a result of this review, a complete understanding of the nature of employability appeared to be impossible. However, the need of such a definition by rehabilitation and placement services was indicated.

Consequently in Chapter II, the method of obtaining a practical and fairly satisfactory definition was set forth. Simultaneously, the answer to the second problem was proposed. No one need shoulder the responsibility of determining when a man is unemployable. The skilled use

of vocational counselling supplemented by medical reports, work histories, social agency data, and in some cases, a psychological report, enables the individual to make his own decision. In addition, the method that is used by the government to control the demand and supply of labour was described.

Up to this point, the nature of the personal and indefinite factors that determine the employment possibilities of the individual had not been considered. For this reason, both the age and medical aspects were examined as they are the major factors affecting the supply of labour. Thus in Chapter III, it was concluded, from the study of the effect of age on employability, that a man cannot be expected to work past his sixty-fifth birthday. Consequently, the employable age group was narrowed to the years 16 - 65. A close investigation of this group revealed that between the sixteenth and forty-fifth years, age could not be considered as a cause of unemployability. But, after the forty-fifth year and from then on, it becomes increasingly more important year by year. Nevertheless, it was shown that age, in itself, does not make a man unemployable. Rather, age in conjunction with ill-health puts a man out of work and keeps him there.

In Chapter IV, the medical factors affecting

employability were evaluated. At the beginning, the prevalence of the various maladies as causes of unemployability was determined. The resulting tables revealed a number of interesting facts. First, it was noticed that, while Neurosis was the major cause of impairment among employables, Cardiac disorder was the paramount cause of unemployability. Secondly, mechanical deficiencies, such as amputations, although they were a grave handicap, were seldom sufficient to make a man unemployable. Thirdly, the effect of age and the seriousness of the ailment determined to a large degree the relative importance of the various maladies. Finally, it was clearly seen that a medical, psychological and psychiatric background was needed to evaluate fully the complex nature of the various cases.

Then followed a rather detailed inquiry into the nature of the five major causes of unemployability. Heart conditions, respiratory diseases, blindness, physical disabilities and mental ailments were considered. The nature of each disease was outlined. Moreover, the kind of work that impaired persons could perform was indicated. In many instances, actual cases were presented to supplement the material. A number of conclusions were drawn from this study. First, a man's sphere of activity is greatly reduced by any one of

these deficiencies. Secondly, each individual case must be treated separately. Thirdly, persons past forty-five years of age who are suffering from Heart Trouble are practically unemployable. Fourthly, the mechanical impairments such as amputations and injured arms or legs, need not be a cause of unemployability. Fifthly, one ailment rarely acts alone to bring on a disability, and if it does, the issue is soon confused with other complex factors of a psychological or mental origin. Finally, the concept of employability is extremely vague and complicated.

At the outset, two questions were put forth. While a satisfactory answer has been obtained to the second no conclusive solution has been discovered for the first. Employability is a vague and indefinite term which refers only to a particular individual in connection with a specific job at a given time. Nevertheless, some general principles have been determined. These should prove useful to employment officers as they strive to place each person in the position where his individual ability, experience and training may be used to the best advantage.

APPENDIX A

Age and the Rate of Increase of Its Importance

This study was made on the basis of information gathered in the form of registrations by the Hamilton Employment and Selective Service Office. Two files in particular were used. The one contained the registrations of all males who were considered unemployable between the ages of 16 - 69 inclusive. The other was composed of all the handicapped men that had been placed by the Special Placement Section.

Tables VII and VIII present the distribution of employable handicaps and unemployable men respectively, both in absolute and relative figures.

Although a rough estimate of the increasing rate of importance of age can be determined from a study of this raw data, a more accurate appraisal was obtained by examining the unemployable distribution separately. To begin with, all those about 65 years of age were set aside so that there remained only 313 cases. It was deemed advisable to compute and fit a second degree equation by the method of least squares in order that the general tendency or trend might be described. Certainly the sample is large enough to support a fairly reliable fit. Moreover the irregularity

of the data required some appropriate and objective method of determining a measure of central tendency about which the entire population might be expected to group itself. As there are many factors affecting employability, a second degree curve could not possibly describe the situation precisely. However an objective method of computing the trend, even if it was not a perfect description, was considered to be more reliable than any other method that might be computed by an unskilled hand.

The origin was placed mid-way between the fortieth and forty-first years. The X units equal one half year. The resulting equation was $Y_c = 2.1 + .22X + .005X^2$. This equation, when plotted on arithmetic paper (see Graph I), gives an adequate description of the most important part of the curve which includes the years 45 - 65. However the fit for the years 16 - 40 is inadequate and entirely without significance for the negative values between 26 - 33. But upon examining the curve plotted in percentage form, it will be noticed that, in no case, does one age monopolize more than one percent for the years 16 - 40, whereas the majority of ages has considerably less than one half of one percent of the total group of unemployables. Moreover only twelve percent of the total is found between the

Table VIII

Distribution of Handicapped Employable Males,
According to Age.

Age (years)	Number of Men	Percent of Total	Age (years)	Number of Men	Percent of Total
16	19	5.3	46	6	1.7
17	13	3.6	47	4	1.1
18	9	2.5	48	9	2.5
19	5	1.4	49	4	1.1
20	23	6.4	50	2	.6
21	10	2.8	51	3	.8
22	12	3.3	52	7	1.9
23	15	4.2	53	8	2.2
24	18	5.0	54	5	1.4
25	13	3.6	55	4	1.1
26	6	1.7	56	4	1.1
27	11	3.1	57	6	1.7
28	11	3.1	58	3	.8
29	8	2.2	59	7	1.9
30	7	2.0	60	3	.8
31	7	2.0	61	3	.8
32	11	3.0	62	2	.6
33	4	1.1	63	2	.6
34	7	2.0	64	3	.8
35	7	2.0	65	4	1.1
36	5	1.4	66	1	.3
37	4	1.1	67	0	.0
38	6	1.7	68	2	.6
39	2	.6	69	1	.3
40	7	1.9			
41	6	1.7			
42	3	.8			
43	7	1.9			
44	5	1.4			
45	5	1.4			
Total	266	74.2	Total	93	25.8

Source: Files, Employment and Selective Service Office,
Hamilton, Ontario.

Table IX

Distribution of Unemployable Males,
According to Age.

Age (years)	Number of Men	Percent of Total	Age (years)	Number of Men	Percent of Total
16	0	.0	46	5	1.1
17	1	.2	47	5	1.1
18	0	.0	48	5	1.1
19	0	.0	49	10	2.1
20	3	.6	50	4	.8
21	2	.4	51	5	1.1
22	1	.2	52	9	1.9
23	0	.0	53	8	1.7
24	0	.0	54	6	1.3
25	0	.0	55	6	1.3
26	0	.0	56	14	2.9
27	1	.2	57	15	3.1
28	2	.4	58	14	2.9
29	2	.4	59	17	3.6
30	0	.0	60	18	3.8
31	1	.2	61	23	4.8
32	1	.2	62	17	3.6
33	1	.2	63	23	4.8
34	2	.4	64	25	5.2
35	3	.6	65	35	7.3
36	1	.2	66	42	8.8
37	4	.8	67	43	9.0
38	2	.4	68	45	9.4
39	1	.2	69	35	7.3
40	1	.2			
41	1	.2			
42	7	1.5			
43	5	1.1			
44	3	.6			
45	4	.8			
Total	49	10.0	Total	429	90.0

Source: Files, Employment and Selective Service Office,
Hamilton, Ontario.

years 16 - 45. For all practical purposes, therefore, we may assume that age is an insignificant factor in determining employability between the ages of 16 - 45.

The curve does give a good representation of the trend between 45 - 65 and for this reason the relative rate of increase of importance of age can be determined by studying the group broken down according to age groups. For this purpose, Table II was computed on the basis of the equation.

These results were intended to reveal the general tendency only, and in no way should they be considered adequate to describe all possible populations. The chief reason for them being unable to do so, is that Hamilton is an expanding city. To it are moving able-bodied men from all over the country. Consequently, the unemployable

Table II

UNEMPLOYABLE MEN CLASSIFIED ACCORDING TO AGE.

Age Group (years)	Percent of Total
16 - 45	12 %
46 - 50	11 %
51 - 55	17 %
56 - 60	25 %
61 - 65	35 %
16 - 65	<u>100 %</u>

group is disproportionately small and is likely therefore to be an imperfect sample. A more complete study would tend to show a truer picture, if it was taken some years hence when Hamilton has ceased to expand.

Percent
Unem-
ployed

13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0

THE UNIVERSITY OF MONTREAL

20 25 30 35 40 45 50 55 60 65
Age in Years

Graph I Second Degree Curve Fitted to Age Distribution of Unemployable Males.