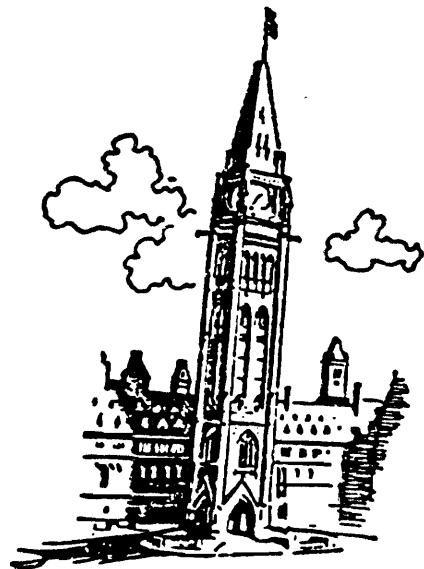


TOWARDS SOLVING CANADA'S HUMAN RESOURCES PARADOX

**A NATIONAL APPRENTICESHIP
POLICY FOR THE '80s**

PRODUCED BY THE OFFICE OF:

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ABSTRACT

As Canada's federal and provincial governments grapple with the emerging public policy problems of the 1980's, they are faced with a potentially crippling human resources paradox. Today — an unconscionably high percentage of youth unemployment co-exists with worsening skilled labour shortages.

This paradox is partially attributed to a secondary school system that fails to stress the value of vocational preparation. This paper has grown out of the many representations that I, like many other Members, have received from parents and businessmen and from the first-hand knowledge of our secondary school system. I have gained this valuable information from regular visits to the high schools of my constituency.

From these contacts, I have also gained an appreciation for the concerns a growing number of Canadians have for the future of education in Canada. Both parents and businessmen are outraged by the fact that the capabilities of high school graduates are not keeping pace with the unabated acceleration of educational costs.

Since the 1977/78 fiscal year, the annual per pupil cost of supplying our children and young adults with an elementary/secondary education has jumped from \$2,250 to \$3,133. (1) The total elementary/secondary education bill is estimated to have risen to about \$22.5 billion in 1980/81, from the 1977/78 level of \$17.4 billion. (2) Parents and businessmen are painfully aware of the fact that despite this expenditure increase, an average of 408,000 young Canadians between the ages of 15 and 24 were unemployed in 1980 and skill shortages worsened.

(1) *The latter amount is an unrevised forecast for the 1980/81 fiscal year. Both figures were obtained from the Education, Science and Culture Division of Statistics Canada.*

(2) *Statistics Canada, Advance Statistics of Education, 1980-81, (Ottawa: Minister of Supply & Services, 1980), p. 25.*

In view of these concerns, we should not be surprised to note that the confidence of Canadians in their educational system is eroding. In 1948, 74 percent of respondents to a Gallup Poll felt that their children were receiving a better education than they did . . . in 1981, this percentage had shrunk to 47 percent. (3)

I have no doubt that the paradox which is at the root of these concerns has assumed crisis proportions. An appraisal of engineering manpower requirements for the energy megaprojects planned for the 1980 - 2000 period, prepared for the Canadian Council of Professional Engineers, placed a price tag of \$205 billion on these energy-related projects. (4) Their completion demands an enormous pool of skilled labour that we simply do not possess.

Some idea of the skilled labour component of these projects may be gauged from the Economic Council of Canada's estimate that if large energy projects such as Alsands, Cold Lake, the Alaska Highway Gas Pipeline, the Q & M Pipeline, and the East Coast Pipeline are cancelled, a cumulative total of 753,000 jobs would be lost over the 1980 - 1990 period. (5) The irony of this crisis situation is that this virtually insatiable demand for skilled labour co-exists with a youth unemployment population that averaged 408,000 people in 1980. (6)

This paper argues that this impending human resources crisis may be partially averted by a renewal of vocational education at the secondary school level. My endorsement of a secondary school apprenticeship program combining on-the-job training with part-time vocational and general education springs from the analysis of the apprenticeship system developed in another federal state — the Federal Republic of Germany — and from the consideration of other evaluations of the apprenticeship approach to vocational training.

These analyses form the basis for the recommendation that the federal government convene a National Vocational Education Conference at which provincial governments, industry representatives, trade union leaders, and educators could discuss the proposal to adapt apprenticeship training to our secondary school system.

(3) Iain Hunter, "School System's Status Declining," *Ottawa Citizen*, April 1, 1981, p. 15.

(4) Foster Research and Govier Consulting Services Ltd., "Energy Manpower Requirements 1980 - 2000 for Major Energy-Related Projects in Canada," (Ottawa: Canadian Council of Professional Engineers, 1980), p. 2.

(5) Economic Council of Canada, *A Climate of Uncertainty: Seventeenth Annual Review*, (Ottawa: Minister of Supply & Services, 1980), p. 44.

(6) Statistics Canada, *Historical Labour Force Statistics - Actual Data, Seasonal Factors, Seasonally Adjusted Data*, (Ottawa: Minister of Supply & Services, 1980), p. 100.

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CHAPTER I

Introduction

As Canada's federal and provincial governments grapple with the emerging public policy problems of the 1980's, they are confronted by several potentially crippling paradoxes. Chief among these is our energy paradox . . . despite Canada's abundance of untapped petroleum resources, we remain dependent upon unstable foreign supplies of crude oil.

The preoccupation of governments, the media, and the public with this issue has diverted our attention from a second dilemma that is no less dangerous to our nation's future — one that may be characterized as a human resources paradox. Its essential feature is the co-existence of today's unconscionably high percentage of youth unemployment with worsening skilled labour shortages in several sectors of the economy.

This paper examines this latter problem. Its primary contention is that today's high level of youth unemployment and skills shortages are partially due to a secondary education system that does not stress the vocational preparation function of education. In all-too-many instances, secondary schooling produces nothing more than unskilled workers; these unskilled students in turn become prime candidates for unemployment and unproductive lives.

After revealing the severity of Canada's human resources paradox and the secondary school system's complicity in its emergence, we will turn to see how another federation, the Federal Republic of Germany, has successfully prevented the development of such a situation. We will suggest that the availability in the German secondary school system of a vocational training alternative, combining apprenticeship training with compulsory part-time schooling, is a prime contributor to both the very low rate of youth unemployment and the adequate supply of skilled labour found in West Germany.

West Germany's apprenticeship system was selected for study here for a variety of reasons. Several other European nations, such as Austria and Switzerland, also place a heavy emphasis upon the apprenticeship training option we prefer. Their systems are not examined here in part because comprehensive evaluations of their operation are less accessible than are similar evaluations of the West German program.

In addition to the relative availability of information about apprenticeship training in West Germany, a second contributor to the decision to study Germany was that nation's federal character. We felt that this federal dimension and the presence of federal-Lander co-operation in the field of vocational training made the West German example particularly relevant to the Canadian situation. Our decision to present the West German alternative was also based upon the linkage some commentators make between the availability of apprenticeship training and West Germany's enviable post-war economic performance.

The later stages of the paper argue that strengthening the ties between secondary schooling and working life is a prerequisite for eliminating our country's human resources dilemma. We further argue that these strengthened ties should take the form of a national secondary school apprenticeship training option.

The concluding sections of the paper search for a role for Ottawa to play in the introduction of a national apprenticeship policy. Constitutional necessity and the interdependence of modern policy demand a co-ordinated federal/provincial approach to the introduction of this policy. This need for co-ordination inspires this paper's recommendation that the federal government convene a National Vocational Education Conference at which a proposal to establish this apprenticeship alternative could be discussed with and examined by provincial governments, industry representatives, trade union leaders, and educators.

Our arguments will be presented in five subsequent chapters — Chapter II examines the first element of the human resources paradox -- youth unemployment. It documents the seriousness of youth unemployment and considers the social and economic costs of high unemployment among the young. It then turns to investigate possible causes of the high incidence of youth unemployment in Canada. After examining the ineffectiveness of federal job creation and retraining programs, our view shifts towards the contribution made by the secondary school system itself to the prevalence of youth unemployment.

Chapter III focusses upon skilled labour shortages — the second element of this problem. This chapter aims to underline the severity of skilled labour imbalances in the Canadian economy and uncover several contributors to present shortages. The secondary school system is cited as a major contributing factor.

Chapter IV argues that an important factor in the economic success and low youth unemployment rate of West Germany is that country's provision of an apprenticeship program within the secondary school system. This chapter examines the constitutional division of powers as they relate to education and the importance of the vocational preparation function to the secondary education network.

The chapter concludes by evaluating the contribution of the vocational training system to the economic strength and low unemployment rate of the Federal Republic.

Chapter V is basically a response to the evidence gathered in the preceding four chapters. On the basis of this evidence, the chapter urges both senior levels of government to accept the wisdom of using a national apprenticeship policy as a strategy in the battle against the human resources paradox.

The chapter begins by underlining the need to strengthen the linkage between secondary school and working life in Canada. It proceeds to note the widespread support for increased apprenticeship training and to recommend that apprenticeship training be adapted to our secondary school system. It concludes by outlining a possible role for Ottawa in the implementation of the apprenticeship alternative.

The final chapter — Chapter VI — presents several detailed recommendations and our concluding remarks with respect to the implementation of a national apprenticeship policy.

* * * * *

CHAPTER II

YOUTH UNEMPLOYMENT: THE FIRST FEATURE OF CANADA'S HUMAN RESOURCES PARADOX

Our introduction presented the notion that Canada faces a serious human resources paradox, one element of which is a very high level of youth unemployment. A time-series, statistical comparison of youth representation within two population groups — the labour force and the unemployed labour force — illustrates clearly the presence of consistently high levels of youth unemployment. The data presented in *TABLE I (Page 5)*, points to a significant overrepresentation of Canada's youth in the country's unemployed labour force.

Today's public policy makers should be particularly concerned by the fact that 1966's distressing degree of overrepresentation has worsened marginally over the subsequent fourteen year period.

In 1966, the difference between youth representation in the unemployed labour force and the youth percentage of the labour force stood at 16.4 per cent; by 1980, despite an expanded network of youth oriented job creation programs, this gap had widened to 20.3 per cent.

Preliminary labour force data for the first two months of 1981 do not suggest that this gap is rapidly diminishing. In January, the difference between youth representation in the labour force and youth representation in the unemployed labour force was 19.3 per cent; in February, the gap increased to 19.9 per cent. (2)

The severity of youth unemployment in our country may also be emphasized through the use of alternative comparisons. *TABLE 2 (Page 6)*, presents one such alternative, a comparison between the unemployment rate among 15 - 24 year olds and the same rate among 25 years of age or older. Never, during the fourteen year period covered by *TABLE 2*, was the youth unemployment rate less than twice the rate for people aged 25 or older.

Table 1

15 - 24 YEAR OLDS AS A PERCENTAGE OF THE LABOUR FORCE, UNEMPLOYED LABOUR FORCE, 1966 - 1980 (1)

| YEAR | LABOUR FORCE | UNEMPLOYED LABOUR FORCE | DIFFERENCE (%) |
|------|--------------|-------------------------|----------------|
| 1966 | 24.2 | 40.6 | 16.4 |
| 1967 | 24.7 | 41.9 | 17.2 |
| 1968 | 25.1 | 43.0 | 17.9 |
| 1969 | 25.2 | 42.8 | 17.6 |
| 1970 | 25.4 | 45.0 | 19.6 |
| 1971 | 25.8 | 46.0 | 20.2 |
| 1972 | 26.1 | 45.6 | 19.5 |
| 1973 | 26.6 | 46.2 | 19.6 |
| 1974 | 27.2 | 47.3 | 20.1 |
| 1975 | 27.1 | 47.1 | 20.0 |
| 1976 | 26.9 | 48.0 | 21.1 |
| 1977 | 26.9 | 47.9 | 21.0 |
| 1978 | 26.8 | 46.4 | 19.6 |
| 1979 | 27.0 | 46.9 | 19.9 |
| 1980 | 26.8 | 47.1 | 20.3 |

Table 2

UNEMPLOYMENT RATES, PERCENTAGES,
15 - 24 YEAR OLDS, 25 YEARS OF AGE OR OLDER (3)

| YEAR | 15 - 24 YEAR OLDS | 25 OR OLDER |
|------|----------------------|----------------|
| 1966 | 5.6 | 2.6 |
| 1967 | 6.5 | 2.9 |
| 1968 | 7.7 | 3.4 |
| 1969 | 7.5 | 3.4 |
| 1970 | 10.0 | 4.2 |
| 1971 | 11.1 | 4.5 |
| 1972 | 10.9 | 4.6 |
| 1973 | 9.6 | 4.1 |
| 1974 | 9.3 | 3.9 |
| 1975 | 12.0 | 5.0 |
| 1976 | 12.7 | 5.1 |
| 1977 | 14.4 | 5.8 |
| 1978 | 14.5 | 6.1 |
| 1979 | 13.0 | 5.4 |
| 1980 | 13.2 | 5.4 |

The comparison of Canada's youth unemployment picture with those drawn from other industrialized nations reinforces the conclusion that Canada's youth are very hard hit by unemployment. TABLE 3 (below), shows that, among twelve OECD countries, Canada had the dubious honour of possessing the third highest youth unemployment rate in 1965, the second highest in 1970, and the fourth highest rate in 1976. In these three years, Canada remained mired among the third of these countries most seriously afflicted by youth unemployment.

Table 3

YOUTH UNEMPLOYMENT RATES:
OECD COUNTRIES, 1965, 1970, AND 1976 (PERCENTAGES) (4)

| COUNTRY | 1965 | 1970 | 1976 |
|---------------|-------|------|--------|
| AUSTRALIA | 1.7 | 2.5 | 9.0 |
| AUSTRIA | - | 1.4 | (1.4) |
| CANADA | 6.2 | 10.1 | 12.7 |
| FINLAND | (2.3) | 3.0 | (8.3) |
| FRANCE | - | 1.5 | (9.9) |
| GERMANY | 0.2 | 0.3 | (5.2) |
| GREAT BRITAIN | 1.2 | 2.7 | (13.1) |
| ITALY | 8.7 | 10.2 | (14.4) |
| JAPAN | - | 1.9 | 3.1 |
| SPAIN | 1.8 | 2.3 | 12.5 |
| SWEDEN | 2.6 | 2.8 | 3.6 |
| UNITED STATES | 9.1 | 9.9 | 14.0 |

NOTE: Except where noted, youth refers to ages 15 - 24 inclusive. Except for Canada, rates are from the OECD Observer (1978). A dash indicates not available. Parentheses indicate OECD estimates.

In Austria ages are 14 - 29 for 1965 and 1970 and 15 - 29 for 1976. For Canada the figures are on the Labour Force Survey new definition basis. For Finland a revised series from 1976 is used. For Germany the number in the 1965 column refers to 1964. For Great Britain the numbers refer to unemployed aged under 25 and labour force aged 16 - 24. For Italy the ages are 14 - 24. For Spain the number in the 1965 column refers to 1967. For Sweden and the United States the ages are 16 - 24.

THE COSTS OF YOUTH UNEMPLOYMENT

What costs accompany these levels of youth unemployment? At the outset, we must make it clear that it is much more difficult to estimate the costs of this phenomenon than to document its presence. These measurement difficulties result from the practical impossibility of quantifying many of the consequences of unemployment. Denton, Robb, and Spencer recognized this obstacle in their examination of youth unemployment:

There are various types of costs associated with youth unemployment. Many of these are not quantifiable, even on a conceptual level, and most of those that are quantifiable conceptually are, unfortunately, very difficult to measure in practice. (5)

Unquantifiable costs in large measure comprise the social dimension of youth unemployment. While an absolute figure cannot be attached to the social costs of this condition, it is nonetheless quite reasonable to speculate that the frustration created by unemployment is a primary animator of various expressions of dissatisfaction with one's circumstances.

In the extreme, this type of frustration may provoke violence. Youthful criminal behaviour, in whatever form it takes, may occasionally result from this particular psychology. In other circumstances, the psychology of frustration may inspire a youthful victim of unemployment to accept the inevitability of this condition and induce him to succumb to the false sense of security advertised by the offerings of the welfare state.

One aspect of youth unemployment that can be more accurately approximated than its social impact, is its economic impact upon Canada's GNP. Denton, Robb, and Spencer, in their study of unemployment, attempted to calculate the primary costs of youth unemployment where primary costs equalled the amount of output lost simply because the unemployed are not active producers. (6)

According to their estimates, staggering economic costs accompany contemporary youth unemployment rates:

. . . the direct or primary effects of cutting the youth unemployment rates in half in 1977 would have been to increase the Canadian GNP by something of the order of 1 per cent, or roughly \$2 billion at 1977 prices. Including secondary effects as well, the total increase would perhaps have been of the order of 4 per cent, or some \$8 billion. (7)

Given this approximation of the economic costs that are spawned by high levels of unemployment among our youth, this phenomenon is a luxury that Canada cannot afford, especially at a time when the annual rate of real growth in our Gross National Product hovers in the neighbourhood of between one and three percent. (8)

* * * * *

THE CAUSES OF YOUTH UNEMPLOYMENT

Any serious analysis of youth unemployment is obliged to devote attention to the search for the causes of high youth unemployment rates. The Denton, Robb, and Spencer study fulfilled this obligation by devoting one of their chapters to this search. Their efforts were not rewarded, however, with the discovery of any firm conclusions.

During part of their search they examined perhaps the most popular explanation for the recent surge in youth unemployment — the post-war baby boom. This explosion in the size of the youthful component of the labour force was not, according to their evaluation, a clear-cut cause of rising youth unemployment.

While the authors willingly acknowledged that data based on a baby boom analysis is suggestive, they nonetheless felt that this data does not ". . . provide clear-cut evidence of the role of demographic effects in determining youth unemployment rates." (9) They leave their reader with the conclusion that the statistician's ability to correlate this expansion in the youth component of the labour force with rising youth unemployment does not prove a causal linkage:

It is not difficult to accept that a rapid increase in the youth labour force might have affected relative youth unemployment rates. However, it is difficult to demonstrate that such increases did have an impact and to estimate it. (10)

It is somewhat ironic that this evaluation, one that does not lend much support to the baby boom explanation of youth unemployment, suffers from the same sociological determinism that animates efforts to establish a causal connection between the baby boom and rising youth unemployment.

These latter efforts often appear to assume that a higher youth unemployment rate is an inevitable consequence of the expansion of the younger strata of the labour force.

To us, a more fruitful explanation of these changes centres on the failure of institutions and governments to adopt policies capable of addressing changing social circumstances. In other words, the failure of public policy to respond adequately to changing circumstances and not the changing circumstances per se should be held ultimately responsible for today's policy problems.

The failure to constructively address youth unemployment may be due in part to the federal government's waning interest in viewing full employment as a primary goal of the national government. In 1945, the Minister of Reconstruction presented Parliament with a blueprint for the development of post-war Canada — the White Paper on Employment and Income. This paper enunciated Ottawa's intention to develop a policy framework that would achieve full employment. It proclaimed:

The central task of reconstruction . . . must be to accomplish a smooth, orderly transition from the economic conditions of war to those of peace and to maintain a high and stable level of employment and income. The Government adopts this as a primary object of policy. (11)

The suggestion that today's government remains committed to this goal is questioned both within and without Parliament. David Crane, economics editor for the Toronto Star, argued that 1980 may have been the year Canada formally discarded the goal of full employment. (12) Abandonment of this goal did not occur abruptly. Instead, Crane suggests that our dedication to the pursuit of full employment eroded gradually during the '70s as Ottawa's decision makers became more preoccupied with creating rationalizations for youth unemployment's presence than with articulating coherent youth employment strategies:

During the 1970's, Ottawa's commitment to full employment eroded, and the experts in the Department of Finance and the Bank of Canada become (sic) preoccupied with finding excuses. One of the most popular for a while was that too many young people and women were flooding the labour market looking for jobs. These people weren't serious workers, it was argued, and hence shouldn't really be counted among the unemployed. (13)

Although Crane may be correct to conclude that this attitude infects some elements of the federal government, it seems more likely that inappropriate policy selection/development ranks as a more instrumental cause of a youth unemployment rate that hovers at persistently high levels.

Perhaps the most inappropriate and ineffectual activity practised by Ottawa as a treatment for unemployment among our youth and other sectors of the labour force is direct job creation. Ottawa often boasts that Canada had a better job creation record during the 1970's than any other OECD country. When we first consider the total employment figures prepared by the OECD, we must agree that Canada did create more jobs than any of our OECD counterparts during this period. (14)

But these employment figures do not comment upon the quality of the work or the length of employment — they do not tell us how many jobs in this total were nothing more than recycled temporary public-sector positions that sometimes serve to increase a young person's dependency upon the government.

In the 1981/82 fiscal year, the Department of Employment and Immigration proposes to spend \$142,797,000 on direct job creation. Whether the expenditures that will be made under the auspices of the Local Employment Assistance Program (LEAP), the Community Development Projects, and other job creation programs will enjoy any measurable degree of success is a very debatable point. The following indictment of LEAP was made by Ann Pappert in the November 1980 issue of Canadian Business:

Whether or not former LEAP employees ever do find jobs is a mystery, because no one follows them up to find out what happens to them. That is to say, the government hasn't the slightest idea what results it's got for its \$200 million. But it's fairly certain that the only permanent jobs created by the program are for the civil servants, project directors and outside consultants who run it. (15)

Her critical assessment of federal job creation initiatives is best summarized by the conclusion that LEAP and other job creation ventures:

. . . will create more than 30,000 jobs. And for the government, that's the only measure that really counts. Whether these people ever find work in the mainstream economy is irrelevant. LEAP officials haven't bothered to find out.

That may be just as well. They might discover that LEAP's \$200 million investment has for the most part been wasted. It may even be that those millions of dollars have made a lot of people more dependent than ever on the government's largesse. (16)

Expensive job creation efforts such as LEAP represent the 'Make-Work Illusion' that George Gilder contends haunts American society.(17) Job creation projects offer band-aid solutions to the victims of unemployment, treat only the symptoms of their predicament, but do not address themselves adequately to tackling the forces responsible for one's fall from employment.

They lack a preventative orientation. Public sector make-work programs are not ultimately productive for either the individual or the economy. As Gilder argues in the following quotation, this approach is more likely to produce jobs that consume, not produce; that waste, not create:

To create real jobs in the public sector — jobs which produce more than they consume, and which earn a profit in the mystical and multifarious ledger of the public interest — is altogether as difficult as creating private sector work. If it seems easy, the result is probably consumption. As a general principle all public sector work that is created to 'develop jobs' rather than to accomplish a needed end may be assumed to represent waste. (18)

Manpower retraining, a second strategy invoked by Ottawa in its campaign against the high incidence of youth unemployment, has proven to be scarcely more effective than job creation at providing our youth with permanent, productive jobs. The strength of Ottawa's faith in the manpower retraining approach is illustrated by Finance Minister MacEachen's reference to the importance of manpower retraining in his October 28, 1980 Budget Speech and by the size of federal allocations on employment training.

Despite the obvious need to restrain government spending, the Finance Minister acknowledged the need for Canada to increase its expenditures on industrial adjustment and manpower retraining.(19) He stated that:

We are also very much aware of the shortage of skills in this country. Even in the midst of recession, those shortages were apparent in many trades and employers have had to look for skilled craftsmen in other countries. Our manpower training and mobility programs will be redirected to deal with this problem. (20)

With the introduction in January 1981 of a \$350 million program to promote industrial restructuring and labour adjustment, the government claimed to have implemented this Budget promise.(21)

The seriousness of Ottawa's commitment to employment training is also illustrated by the Department of Employment and Immigration's expenditures on this item. According to the Departmental estimates for the 1981/82 fiscal year, \$876.606 million will be spent on employment training.(22) This total is \$21.861 million higher than the 1980/81 forecast training expenditures of \$854.745 million.(23) Among Western nations, Canada's 1980 per capita manpower training expenditures were exceeded only by Sweden.(24)

The bulk of these monies is funnelled through the Canada Manpower Training Program (CMTP) and the Canada Manpower Industrial Training Program (CMITP). In the 1979/80 fiscal year, \$672.2 million was spent through these two programs. The institutional component of the CMTP accounted for \$570.9 million of this total; \$101.3 million was spent on the industrial training alternative provided by the CMITP.(25)

To Employment and Immigration Canada, the CMTP represents ". . . an essential ingredient in an active national manpower policy."(26) It aims to assist ". . . job seekers who have difficulty getting or holding employment because they lack training or because their skills are no longer useful in a changing labour market . . ."(27)

The CMTP is an institutionally oriented employment training program — federal funds devoted to the CMTP are obliged to be used to purchase courses which are usually offered in provincial educational facilities. In a federal/provincial environment where Ottawa is the buyer of training programs and provinces are program sellers, the provinces are responsible for training content.

In the Department's opinion, CMTP courses ". . . are flexible, geared to the requirements of individual clients and to the occupational demands of the job market."(28) A wide ranging selection of courses is offered under the umbrella of the CMTP. This selection encompasses ". . . occupational skill training, academic upgrading, basic preparation for and adjustment to the world of work, language fluency, and the classroom portions of apprenticeship training."(29)

The second major component of federal employment training is the CMITP. In contrast to the CMTP, the CMITP is an industrially focussed program. The CMITP obliges Ottawa to reimburse employers for part of the costs of establishing training projects conforming to the program guidelines and training priorities established by the federal/provincial manpower needs committees.

The guidelines for acceptable industrial training include the stipulation shared with the CMTP that the supported training last a minimum of one week but no more than 52 weeks full time.

Alternatively, this training may last for up to 1,820 hours part-time. For workers to qualify for this federally supported training, they must be company employees at the time of training and must be one year beyond the relevant provincial school-leaving age.

As the development of the CMTF and the CMITF suggests, Ottawa has created an extensive network of manpower training programs. However, many assessments of federal employment training claim that the scope of the federal training effort is not matched in terms of effectiveness. The federal approach to manpower training has not been tremendously successful in improving the employment prospects of all Canadians, let alone young Canadians.

Criticisms of the conventional federal approach to training have come from representatives of government, academia, business, and labour. My colleague in the House of Commons, the Honourable Elmer MacKay, the veteran Nova Scotia Member of Parliament, greeted Mr. MacEachen's Budget manpower retraining announcement with the charge that this announcement promised Canadians another 'band-aid' program and recognized the failure of permanent job creation efforts.(30) He went on to observe that, 'A lot of the retraining is just short-term economic relief instead of serious, careful education and technical improvement.'(31)

MacKay's criticisms of federal manpower policy are echoed by a host of business and labour leaders. John Bulloch, President of the Canadian Federation of Independent Business, has argued that many businessmen ignore Canada Manpower in their search for skilled labour. In his opinion, Canada Manpower does little more than 'provide marginal employees to marginal employers'.(32)

Dr. Roy Adams, Chairman of the Federal Commission of Inquiry on Educational Leave and Productivity, cites bureaucratic red tape as another cause of employer reluctance to participate in federal training programs:

Training grants available from government agencies are ignored by many Canadian employers because of the bureaucratic red tape involved in obtaining them.(33)

These sentiments are shared by Shirley Carr, Vice-President of the Canadian Labour Congress. Carr believes that CMTF courses are frequently, 'band-aid solutions to get people off the unemployment rolls. It makes it look to the community as if everybody is back to work again; and that is really false. It is false on behalf of the government to mislead . . .'(34)

In my own constituency, local trade union representatives feel that there is a tremendous discrepancy between the skill requirements of the workworld and the classroom training supported by Ottawa. One member of the United Steelworkers of America told a seminar on skilled labour shortages that, "There is poor, or no relationship, between the trades training at the college and that on the mine site."(35)

A study commissioned by the Department of Employment and Immigration in 1978, revealed that contemporary training in Canada did not contribute to domestic skill development. They found that, among the manufacturing firms surveyed, the mean age of skilled workers was 40 - 44 years and that a significant majority of the firms' skilled workers were born outside of Canada.(36) This report also levelled major criticisms against CMTP:

There was general criticism of the graduates of the manpower institutional training programs. It was felt by firms that such training should not be seen as producing a fully-trained worker, but rather as an introduction to basic skills.(37)

Another stinging indictment of federal manpower policy was contained in the Report of the Commission on Vocational, Technical, and Trades Training in British Columbia. The Commissioners' lengthy commentary is reproduced below:

Through Canada Manpower training programs, client groups are created or manipulated in ways that are not always in the best interests of the individuals nor consistent with provincial priorities. For example, the stipulation that adults must have been out of school for one year precludes recent secondary school graduates from receiving federal sponsorship in vocational training programs. In addition, federal allowance levels (substantially higher than inadequate provincial allowances) combine with federal selection procedures to attract persons to vocational training courses who may not have the requisite aptitudes and interests.(38)

A more recent and harsher provincial critique of the federal manpower training effort is presented in the preliminary report of Quebec's Jean Commission into adult education. After a series of public meetings in Quebec, the Task Force reported that:

Federal Manpower counsellors do not have the time or competence to direct adults to job-training programs that will help them find work.

Some Manpower clients had to wait up to 2½ years to get the skill-training courses they wanted. (39)

Fuelled by these observations, the Commission recommended that the province assume total responsibility for all job-training now run by the federal government.

One aspect of the CMTF and the CMITP which comes under sharp criticism is the stipulation that training cannot last for more than one year. (40) Dr. Adams believes that this limiting factor reduces the utility of the dollars spent by Ottawa on manpower training. Writing in 1980, he argued that:

The Canadian federal government spends approximately \$600 million each year on labour market training but the design of the program is not adequate to the needs. In order to ensure a high level of occupational competence, two to four years of systematic training is necessary. However, the Canadian Manpower Training Program, which is available primarily to unemployed adults, does not provide for more than one year of occupational training and development. (41)

Taken together, these wide-ranging criticisms suggest that federal training policy has not been successful in recent years. These criticisms reinforce the conclusion of the Commission of Inquiry on Educational Leave and Productivity (hereafter cited as the Adams Commission) that:

Given these bureaucratic difficulties and the continuance of serious training deficiencies, the piecemeal approach of government support to industrial training cannot be deemed a success. (42)

This unsatisfactory record leads us to repeat the rhetorical question posed by Wayne Cheveldayoff in 1978:

Can we really believe the . . . annual federal budget for job training is giving the taxpayer 'value for money' if skilled foreign workers have to be imported at a time of near record-high unemployment? (43)

Given the critical tenor of these manpower training assessments and the persistence of high youth unemployment, we are forced to conclude that federal training policy must be grouped with its job creation counterpart as a policy which has, through its ineffectiveness, contributed to the persistence of a high rate of joblessness among our youth.

CANADA'S SECONDARY SCHOOL SYSTEM:
AN OVERLOOKED CONTRIBUTOR TO YOUTH UNEMPLOYMENT

Job creation and manpower training are not the only policy responses responsible for this first element of Canada's human resources paradox. In our view, the many policy decisions and directions that comprise our secondary education system bear a major share of the blame for this situation. In this section, we will propose that the current state of secondary education in Canada must be regarded as a primary contributor to our youth unemployment predicament.

By continuing to emphasize 'a classical university-preparatory educational program' (44) Canada's secondary schools have failed to make the curriculum adjustments necessary to accommodate the close relationship between education and the working environment which the 1980's dictates. As our educational system has strayed from the path which prepares our students for working life, its contribution to burgeoning youth unemployment has grown.

While educators applaud the benefits offered by secondary school studies, a disturbing percentage of students desert secondary school before graduation; moreover, many successful high school graduates do not possess the skills needed to obtain the meaningful employment they seek. Lacking the skills demanded by employers, a distressing number of students end up on the unemployment rolls.

The secondary school system's contribution to youth unemployment is located in these latter two characteristics:

- (a) *its inability to retain approximately 30 per cent of the Grade Eight population through to Grade Twelve*
- (b) *its failure to give many of those who receive a high school diploma, the vocational background and training needed to take advantage of available skilled labour opportunities*

Before looking at the first of these characteristics, the secondary school retention rate, we will consider the prominence accorded to vocational training by the Canadian Teachers' Federation (CTF), the Canadian School Trustees' Association (CSTA), and the Organization for Economic Co-operation and Development (OECD).

* * * * *

VOCATIONAL TRAINING AS AN EDUCATIONAL GOAL

An emphasis on vocational preparation is for the most part absent from the CTF's list of national educational goals. The CTF's perspective on education's fundamental aim was outlined in its 1980/81 statement of objectives and policy. In an extremely vague and ambiguous statement, the Federation suggested that:

The fundamental aim of education is the intellectual, aesthetic, physical, emotional and ethical integration of individuals into complete persons who realize self-respect, self-fulfillment and their relevance in society. (45)

The closest the Federation comes to recognizing vocational education as an important goal would appear to be in the statement that:

Education programs must be designed to enable children to become responsible contributing members of society. (46)

A much stronger relationship between vocational preparation and educational goals is forged by the CSTA in the Association's 'National Employment Strategy' position paper. The School Trustees view the educators' responsibilities through a lens different from that used by the CTF:

Objectives of school boards across Canada vary to some extent, but there is one objective that is common to all school boards . . . the preparation of students in elementary and secondary schools for the world of work . . . a major responsibility of the elementary and secondary school systems is to prepare students for adult life: responsibilities and a career. (47)

This heightened awareness of the importance of vocational preparation to a contemporary education strategy is also acknowledged throughout the OECD publication, Education and Working Life. In this report, representatives of OECD countries joined to recommend common objectives for educational policy and to suggest strategies for bringing education and working life closer together. Animated by this view of educational priorities, their report maintains that:

A major objective of compulsory education is to provide a common, basic learning experience for all pupils which will prepare them for everyday life, including subsequently highly diversified patterns of education and employment. (48)

These snapshots of the educational objectives held by the CTF and the CSTA and contained in the OECD publication Education and Working Life place varying degrees of emphasis upon the importance of vocational preparation.

After consulting the CTF statement of objectives and policy, one cannot conclude that vocational preparation is regarded as a vital priority of the Federation — a position which contrasts sharply with that adopted by the CSTA.

To the extent that the CTF's more ambiguous linkage between vocational preparation and education influences public policy, we may expect that such preparation will not be stressed in the secondary school curriculum.

* * * * *

CANADA'S SECONDARY SCHOOL RETENTION RATE

It is impossible to estimate confidently the relationship between these differing philosophical approaches and youth unemployment. Yet, we suspect that many of the growing number of parents who are dissatisfied with the educational opportunities provided for their children ignore this note of caution and feel that the CTF perspective is largely at fault for the problems our youth currently face.

One participant at a B.C. government-sponsored seminar on skilled labour shortages held in Prince George, B.C., spoke for this frustrated group of parents. In order to understand labour/management and labour market problems:

. . . you have to go back and go to the fundamentals, to the root of the problem which I believe is the school system The first steps the Government should look at is the school system. 30 to 40% of those kids drop out of school anyway. They don't intend to become an architect, or lawyer . . . (49)

In the minds of people such as this participant, our school system is failing approximately one-third of those who are enrolled in it.

The data found in *TABLE 4 (Page 20)* shows that the drop out rate in our secondary school system is quite close to the one cited above. *TABLE 4* explores Canada's secondary school retention rate by charting the progression of the 1971/72, 1972/73, 1973/74, and 1974/75 Grade Eight populations from nine provinces and the Territories through the secondary school system.

Table 4

CANADA'S SHRINKING PUBLIC SECONDARY SCHOOL ENROLMENTS

| SCHOOL YEAR/GRADE | # STUDENTS | SCHOOL YEAR/GRADE | # STUDENTS |
|---|---------------------|---|---------------------|
| 1971/72 - EIGHT | 319,323 | 1972/73 - EIGHT | 324,623 |
| 1972/73 - NINE | 337,858 | 1973/74 - NINE | 343,640 |
| 1973/74 - TEN | 307,182 | 1974/75 - TEN | 313,447 |
| 1974/75 - ELEVEN | 262,205 | 1975/76 - ELEVEN | 270,199 |
| 1975/76 - TWELVE | 223,092 | 1976/77 - TWELVE | 229,272 |
| <i>DIFFERENCE BETWEEN 1971/72 - 1975/76</i> | - 96,231 (30.1%) | <i>DIFFERENCE BETWEEN 1972/73 - 1976/77</i> | - 95,351 (29.4%) |
| SCHOOL YEAR/GRADE | # STUDENTS | SCHOOL YEAR/GRADE | # STUDENTS |
| 1973/74 - EIGHT | 329,942 | 1974/75 - EIGHT | 332,828 |
| 1974/75 - NINE | 344,482 | 1975/76 - NINE | 346,134 |
| 1975/76 - TEN | 320,352 | 1976/77 - TEN | 320,060 |
| 1976/77 - ELEVEN | 277,416 | 1977/78 - ELEVEN | 277,226 |
| 1977/78 - TWELVE | 233,555 | 1978/79 - TWELVE | 236,619 |
| <i>DIFFERENCE BETWEEN 1973/74 - 1977/78</i> | - 96,387 (29.2%) | <i>DIFFERENCE BETWEEN 1974/75 - 1978/79</i> | - 96,209 (28.9%) |

This Table reveals that only roughly 70 per cent of each Grade Eight subsequently enrolled in Grade Twelve.

For example — by the 1975/76 school year, only 69.9 per cent of the 1971/72 Grade Eight class was still in school; just over 96,000 1971/72 Grade Eight pupils had left the school system over this four year period.

Similarly, by the 1978/79 school year, only 71.1 per cent of the Grade Eight class enrolled in Grade Twelve; once again, slightly more than 96,000 members of the 1974/75 Grade Eight population had deserted the school system over the four year period.

Figures such as these substantiate a comment on the effectiveness of our schools made by a group of OECD examiners in 1976. We concur totally with their comment that:

. . . dropouts are numerous before the last year of the composite secondary school. One cannot flatly claim, then, that the secondary school system has succeeded in reaching its goal: offering to all youngsters from 12 to 17/18 years of age an education fitted to their needs, which permits them to develop and broaden themselves by practice at an array of activities tailored to their different talents and temperaments, tastes and aptitudes. (51)

According to the OECD, young people who fail to complete secondary school face a bleak future which is likely to include periods of unemployment:

There are many young people . . . who leave school early without either formal qualifications or vocational skills, who experience corresponding difficulties in obtaining an initial job or stable employment with opportunities to obtain training . . . Moreover once in types of employment that are low level or unstable, or both, they tend to be considered suitable only for that type of work. (52)

That the tens of thousands of young Canadians who failed to obtain a high school diploma during the 1970's are likely to experience unemployment, has been confirmed in several Statistics Canada reports. After noting that unemployment is negatively correlated with education, Out of School - Into the Labour Force reported that, for the 1974-77 period, the average spring unemployment level of 15 - 24 year olds with only an elementary school education was 23.2 per cent. For those with a secondary school education, the corresponding rate was 13.5 per cent. Meanwhile, the spring unemployment rate for the entire labour force over this same period was just under 8 per cent. (53)

W. Clark and Z. Zsigmond's study, Job Market Reality for Postsecondary Graduates, uncovered a similar tendency. In June 1978, 20 per cent of the 15 - 24 year old age group who had between 0 and 8 years of schooling, were unemployed. Those from this same age group who had between 9 and 13 years of schooling exhibited an unemployment rate of nearly 15 per cent. In this month, Canada's jobless rate for all groups stood at 8 per cent. (54)

The findings of these studies, when combined with the enrolment figures presented in TABLE 4, support the conclusion that youth unemployment is influenced by the secondary schools' ability to retain their student population through to graduation. Our evidence shows that young adults who fail to finish their high school education are much more likely to experience unemployment than are those students who receive a high school diploma and/or a post-secondary education.

Therefore, I feel justified in concluding that, because our secondary school system's retention rate is only about 70 per cent, our secondary school programs are buoying up the incidence of unemployment among our youth. Today's high youth unemployment rates are in part caused by the fact that approximately 30 per cent of Canada's Grade Eight students never reach Grade Twelve. By failing to retain and educate this sizable minority, our secondary schools are contributing to the problems of youth unemployment.

* * * * *

VOCATIONAL TRAINING IN CANADA'S SECONDARY SCHOOLS: A CASE OF TOO LITTLE, TOO LATE

An all-too-common reaction to this conclusion is to blame individual dropouts for their decision to abandon a secondary school education. Dropouts are inevitable according to this scenario; they are disinterested in learning and will desert their studies as soon as they reach the legal school leaving age.

This attitude may have inspired one B.C. government cabinet minister's assessment of the difficulties facing our youth. Jack Heinrich, the Provincial Labour Minister, reacted to youth unemployment's presence with the remark that:

One of the biggest problems we're finding, and this is something that you all are aware of, is that the largest unemployed group of people is between the ages of 15 and 24. We all know why they are unemployed — it's because they haven't taken the opportunity to become properly skilled. (55)

It is a reaction which places much of the responsibility for youth unemployment's severity upon the failure of our youth to take the opportunity to become skilled. It begs the question of whether society generally, and the secondary school system in particular, gives young Canadians that opportunity.

We include the secondary school retention rate among the causes of youth unemployment because we believe that more blame should be placed upon the system than upon the individuals who are obliged to participate in that system.

Here we will expand upon this institutionally focussed critique and argue that our secondary school system does not give its pupils the opportunity to become properly skilled. Because insufficient emphasis is placed upon vocational preparation in our schools, virtually all high school dropouts and many high school graduates lack the skills needed to compete effectively in the job market. Sporadic or prolonged periods of unemployment or job dissatisfaction are likely to plague this group.

Several assessments of Canada's secondary education system highlight the inferior position vocational preparation occupies within our total educational approach. The OECD's 1976 review of our educational policy found the quality of high school vocational courses to be inadequate.⁽⁵⁶⁾ Vocational courses were judged to be mere appendages of the academic high school and to be suited for pupils who were struggling in the mainstream academic program.⁽⁵⁷⁾

The interim report of Ontario's Secondary Education Review Project criticized implicitly the worth of the vocational training programs customarily offered in the province's secondary schools. The report proposed that Ontario's secondary schools increase the number of job-oriented courses offered in their curricula. Secondary educators should strive to develop course packages combining practical content with basic life skills education.⁽⁵⁸⁾

The 1977 report of the British Columbia Commission on Vocational, Technical, and Trades Training in that province contained a similar implicit criticism of the state of vocational training. This Commission spoke of the need to expand vocational education in B.C. Growing public appreciation of occupational training demanded ". . . that we continue to improve, co-ordinate, control, and expand the vocational training system to keep pace with the changing requirements of society."⁽⁵⁹⁾

Participants at the B.C. sponsored Seminar on Skilled Labour Shortages held in Prince George questioned the relevance of contemporary vocational education programs. For example, a member of the United Steelworkers of America argued that, "A way for our young people to begin trades training at the high school level must be found."⁽⁶⁰⁾

Taken together, these assessments suggest that secondary education in Canada does not provide our youth with a sufficient amount of high quality vocational preparation. The accuracy of this claim is buttressed by several evaluations of the finished product of the secondary schools — the high school graduate.

The federal government's Adams Commission argued that this lack of a quality vocational orientation in our high schools wields a destructive influence upon the capabilities of graduates. Our high schools fail to produce skilled workers according to this Commission:

Our inquiry suggests that there are serious inadequacies with the system of education and training in Canada. The problems begin in the primary and secondary schools. Most Canadian schools have adopted a philosophy of providing students with a 'comprehensive' general education. Some vocational training is provided but as the recent assessment of Canadian education by a group of OECD examiners notes, this type of training is generally considered to be inferior to academic or general education and it has tended to attract inferior students.

As a result of this orientation, Canadian youngsters who graduate from the secondary system are broadly educated but most are not vocationally prepared. In labour market language, the great majority must be considered 'unskilled' workers. (61)

This Commission's conclusion is echoed elsewhere. For example, Dr. Adams, the Chairman of the Commission, discovered that the business community shares this rather tainted evaluation of high school graduates. "Employers," said Adams, "are disturbed when new employees are found to be less qualified than their credentials would suggest." (62)

This basic dissatisfaction with today's high school graduate was also evident among the businesses and unions surveyed for Employment and Immigration Canada by Robertson, Nickerson, Group Associates Limited. (63) Their survey of business attitudes and approaches to training discovered that, "A lack of appreciation by the school system of the benefits of working in industry" (64) was one major obstacle to increasing our domestically trained skilled labour supply.

Fuelled by these commentaries, I must conclude that there is a strong tendency for our secondary education system to produce educated, but unskilled, graduates. Without exposure to a meaningful amount of high quality vocational training, high school graduates who do not pursue post-secondary studies face an uphill battle to secure permanent employment.

Because our secondary system does not prepare many of its graduates for the working world by way of a high quality vocational educational program, I am afraid that the system itself must be regarded as a major contributor to the high incidence of youth unemployment among the 15 - 24 year old age group.

* * * * *

CONCLUSION

In this Chapter, we have examined the first element of Canada's human resources paradox — youth unemployment. We began by pointing out the severity of this situation and by underlining the obstacle it raises before our efforts to realize our economic performance potential.

The bulk of this Chapter's arguments have been directed towards discussing the causes of this social blight. Throughout these arguments, I have insisted that youth unemployment's persistence is best explained in terms of the failure of policy makers to design effective policy responses to the problem rather than in terms of the innate characteristics of unemployment's young victims.

Chief among these ineffective policy responses is our secondary school system. Our system has downplayed its vocational preparation function in favour of the more traditional "classical university-preparatory educational program".

The outcome of this orientation is a system which cannot retain nearly 30 per cent of its students through to Grade Twelve, fails to prepare even those who do graduate for working life, and therefore, contributes substantially to the outbreak of youth unemployment.

* * * * *

CHAPTER III

SKILLED LABOUR SHORTAGES:

THE SECOND ELEMENT OF CANADA'S HUMAN RESOURCES PARADOX

Skilled labour shortages are the second element of the human resources paradox we face. In this Chapter, the extent of these shortages and their causes will be examined. The secondary education system will be identified as one of the contributors to the emergence of skilled manpower shortages.

In as recently as 1977, skilled labour supply problems were not generally regarded as a significant drag on Canadian economic performance. Writing about Canada's skilled labour supply situation in that year, William Dodge observed that unemployment, not skill shortages, constituted Canada's most pressing concern.⁽¹⁾ In fact, he considered the unemployed labour force to be a pool from which emerging skill shortages could be quenched:

In times of general economic growth, imbalances in the form of shortages in high-employment areas may be moderate to severe. During recessions such as that which the Canadian economy is still experiencing in 1977, however, a slackening of demand tends to relieve the pressure. Pervasive unemployment both provides a pool of skilled labour and reduces selectivity among qualified workers.⁽²⁾

This situation does not exist today. The business pages of our newspapers report that critical skill shortages haunt many sectors of our economy and hurt our economic productivity.⁽³⁾ Skilled labour supply problems have now joined unemployment as one of our most pressing economic concerns, a development illustrative of the fact that the need for skilled tradesmen is no longer satisfied by recruits from the unemployed labour force.

Ottawa has recognized the significance of these shortages in various ways. A special Parliamentary Committee is investigating the issue of employment opportunities in the 1980's.(4) The Minister of Employment and Immigration has expressed his concern over this problem on a number of occasions.(5) Training agreements have been signed with several industrial associations. Employment and Immigration working groups are studying labour market development opportunities in the 1980's and Canada's unemployment insurance system.

This concern responded to the appearance of severe skill shortages in many sectors of the economy. The widespread incidence of skill shortages was recently documented in the Economic Council of Canada sponsored study Skills and Shortages. Gordon Betcherman, Co-ordinator of the Council's Human Resources Survey, reported that 47 per cent of the 1,354 industrial organizations surveyed, experienced hiring difficulties between 1977 and 1979. Forty-three per cent of these firms expected to suffer from shortages between 1980 and 1984.

Spokesmen for our nascent high technology sector point to particularly severe shortages of trained personnel among their enterprises. General Electric Company Limited's Vice-President for Corporate Technology, P.E. Pashler, told a seminar sponsored by the Toronto Association of Business Economists Inc. that Canadian universities and technical institutes were not producing graduates at a fast enough pace to satisfy the demands of budding microbiology, electronics, and computer enterprises.(6)

Current skilled labour supply problems also restrict the growth of Canada's aerospace industry. The lack of trained personnel is one major factor inhibiting the industry's growth according to D.C. Cameron, the President of Canadian Aircraft Products Limited.(7) Cameron's reservations about the industry's growth potential reiterate part of the message the Aerospace Sector Consultative Task Force gave the federal government in 1978. The lack of skilled manpower was cited as a major hurdle before the growth of the industry.(8) The Task Force reported that:

Members of the Task Force identified shortages of trade and engineering skills in the aerospace manufacturing sector. In some trades, such as skilled machinists, the shortages are acute.(9)

It is misleading to conclude that new, high technology enterprises are the only industries suffering from a skills shortage. Many of our traditional economic leaders are also feeling the pinch of skilled manpower shortages. A survey of manpower needs in the mining industry prepared by the Mining Association of Canada predicted a manpower crisis in that industry unless current training efforts are expanded. Their survey of 69 mining operations discovered that the industry will need 5,278 skilled tradesmen by 1982, while mining training programs will only provide 3,248 new trained workers. A gap of 2,030 tradesmen is predicted.(10)

The petroleum industry will also experience serious manpower shortages over the next decade. A study prepared for the Canadian Council of Professional Engineers by Foster Research and Govier Consulting Services Limited gave a clear indication that labour shortages cloud our energy future. They forecast that, over the next twenty years, Canada's major energy related projects would require an average of 12,500 professional engineers each year.

That this total cannot possibly be met at current training levels is confirmed by the Canadian Engineering Manpower Council's 1980/81 enrolment survey. This survey projected that the number of engineering graduates will rise from the 1981 total of 6,200 to over 6,900 by 1984.(11) It is doubtful that such a large shortfall can be filled by immigration and temporary employment authorizations.

Reports of growing skilled labour shortfalls illustrate that not only are these shortages common in most sectors of the economy, but also that these shortages are even more severe in traditional skilled blue-collar occupations than they are in scientific and engineering occupations. The Economic Council of Canada Human Resources Survey found that:

The most critical shortages are with certain high level blue-collar skills. In terms of numbers, over one-third of all hiring difficulties cited involved two such occupational groups: product fabricating and repair and machining. (12)

If the blue-collar skill shortages associated with the processing and construction trades categories are added to the manpower shortages found in the machining and product fabricating/repair categories, the skilled blue-collar component of both present and anticipated manpower shortages approaches the 50 per cent mark.

The Occupational Training Council of B.C. has presented information confirming the restrictive influence exerted by blue-collar skilled labour shortages upon the growth prospects of that province. The data in TABLE 5 (see Page 29) was gathered from surveys of 46 major B.C. companies and touched upon seven trades categories that are central to the provincial economy. It shows that the supply of apprentices-in-training will not satisfy over one-half of the expected demand for tradesmen over the next two years. This outlook led the Employers' Council of B.C. to the pessimistic conclusion that:

The shortages are expected to become more acute and may retard the expansion of some sectors of the B.C. economy. (13)

Table 5

FORECAST SHORTAGES BY TRADE, ALL INDUSTRIES
FOR THE YEARS 1980 AND 1981 (14)

| CATEGORY | DEMAND | NO. OF APPRENTICES | REQUIREMENTS |
|---------------------------|--------|--------------------|--------------|
| MACHINISTS | 278 | 40 | 238 |
| ELECTRICAL TECHNICIANS | 61 | 3 | 58 |
| INSTRUMENTATION MECHANICS | 99 | 44 | 55 |
| INDUSTRIAL ELECTRICIANS | 243 | 116 | 127 |
| MILLWRIGHTS | 406 | 184 | 222 |
| HEAVY-DUTY MECHANICS | 730 | 174 | 556 |
| DIESEL MECHANICS | 98 | 16 | 82 |
| TOTAL - ALL TRADES | 1,915 | 577 | 1,338 |

* * * * *

CONTRIBUTORS TO SKILLED LABOUR SHORTAGES

There is little doubt that Canada is currently faced by widespread skilled manpower shortages in many segments of the economy and that these shortages are even more acute in the skilled blue-collar occupations than they are in the scientific and engineering fields. We do not propose to suggest that a satisfactory monocausal explanation for this predicament exists.

In part, today's shortages are due to a major decline in the flow to Canada of skilled tradesmen from abroad. In 1967, 69.8 per cent of the immigrants who entered Canada intended to enter the labour force.⁽¹⁵⁾ In 1979, only 57 per cent of the immigrants who came to Canada intended to work.⁽¹⁶⁾

This drying up of foreign skilled labour supplies can be shown in other ways as well. During the 1964-68 period, 112,359 immigrants to Canada belonged to the professional category; in the 1974-78 period, there were only 74,430 such immigrants. In the former period, 1,554 entrants intended to work in the mining and quarrying fields; only 633 such individuals entered Canada in the latter period.

Between 1964 and 1968, 39,315 construction workers came to Canada; this total had dropped to 4,927 for the years 1974 through to 1978. During the 1964-68 period, 106,062 immigrants intended to work in manufacturing and mechanical occupations; in the 1974-78 period, only 73,409 people with this interest entered Canada. (17)

These shortages are also a function of industry's failure to offer quality training programs to their employees. While the Economic Council's Human Resources Survey found that over 60 per cent of their respondents offered some vocational training in the past year, in most instances the duration of this training was not long enough to assist in skill development. A great deal of the training effort noted by the survey:

. . . involved short-term programs which could not reasonably be intended for the transmission of high level skills. Only about one-third of the respondents instituted training of at least three months duration. The acquisition of many vocational skills requires preparation for at least one year (and often considerably longer). With this in mind, it should be noted that only 19 per cent of the firms surveyed reported training programs lasting a year or more. (18)

Apprenticeship training, a particularly effective means of skill development used extensively in most European nations, was strikingly absent from the training programs of most of the firms surveyed. Only 16 per cent of the firms surveyed had had any apprentices during the previous twelve months. (19)

Again though, we must stress that just as the educational system is partially responsible for today's bleak youth unemployment picture, it is also partially responsible for the development of skilled manpower shortages. Our secondary schools have neglected their vocational preparation role with the result that unskilled students are entering industries which are not, as pointed out by the Economic Council of Canada survey, generally distinguished for their training programs. Employers who are guilty of not training their younger employees often reply to such an accusation with the assertion that it is the school's responsibility to supply relevant training. (20)

The school system's complicity in creating skilled trades shortages was acknowledged by the Canadian School Trustees' Association in the memorandum "Bridging the Gap Between School and Work." This statement expressed the belief that:

To avoid the necessity of recruiting skilled workers abroad the schools should make an effort to ensure that the technical training they provide will help Canadian youth to meet the requirements of industry. (21)

If it is reasonable to list our present educational framework as one of the contributors to skilled manpower shortages, it is no less reasonable to suggest that improvements in the vocational offerings of our schools are prerequisites to reducing the severity of such shortages.

This important link between education policy and reductions in the seriousness of skilled trades shortages was stressed in a recent speech by F.L.C. Reed, Assistant Deputy Minister, Canadian Forestry Service, to the annual luncheon of the Canadian Forestry Association. Throughout his address, Reed emphasized that a lack of trained manpower threatens the viability of expanding Canada's forest renewal program and that increasing our school system's output of trained personnel was absolutely essential.

Reed broke this threatening forestry manpower shortage down into four components: professional foresters, forestry technicians, skilled blue-collar labour, and forestry scientists. In each of these areas, Reed predicted a serious need for more trained personnel. For example, in regards to trained woods labour he emphasized that:

A serious forest renewal effort would create a substantial demand for trained woods labour, as many as 25,000 — to work on reforestation of harvested or burned lands that have not regenerated naturally. (22)

He went on to state that increased efforts to improve our educational system are needed to combat this impending manpower crisis for, "(w)ithout the expertise coming on stream we cannot hope to carry out even modest improvements in forest regeneration or advanced silviculture." (23)

* * * * *

CONCLUSION

This Chapter has presented arguments in support of the contention that skilled manpower shortages may be identified as the second element of Canada's human resources paradox.

Skills shortages have leapt into view in virtually all sectors of the economy and most certainly, they plague the industries that are regarded as instrumental to the achievement of our economic potential.

A variety of developments have contributed to the severity of today's shortages. The drying up of foreign skilled tradesmen pools and woefully inadequate industry training programs are two of the chief culprits.

This notwithstanding, we regard our educational network as a prime contributor to the emergence of manpower shortages. Our failure to pay sufficient attention to the vocational preparation function of education has produced a highly educated, insufficiently trained workforce incapable of satisfying the country's skilled labour needs.

* * * * *

CHAPTER IV

WEST GERMANY'S SECONDARY SCHOOL APPRENTICESHIP PROGRAM: A CONTRIBUTOR TO ECONOMIC STRENGTH

The problems associated with the teaching and training of young people and helping them to make the transition from school to work are not unique to our country. Other nations have their traditions and strategies, some of which resemble our own and some of which bear little resemblance at all to customary Canadian approaches.

In some cases, our partners in the Western economic world have succeeded where we have failed. In West Germany, for example, the package of strategies aimed at increasing the participation of their youthful population in productive labour and at replenishing their skilled labour supplies has, for the most part, overcome the threat of a human resources paradox. (1)

Although the West German economy is now beset with serious problems of its own, these difficulties stem from today's high energy costs and a dearth of essential raw materials — they are unrelated to the German effort at managing their human resources. It is tempting to suggest that the absence of plentiful natural resources is responsible for the excellence of West Germany's manpower management record.

In this Chapter, we will look at one of the cornerstones of West German human resource management — the secondary school apprenticeship program. This program deserves much of the credit for West Germany's industrial success and for that country's ability to prevent the birth of a human resources paradox.

The discussion will open with an examination of the constitutional division of authority as it relates to education in the German federation; this will be followed by a description of West Germany's secondary school system — a system which accords a great deal of prominence to the vocational preparation function; the section will conclude with an evaluation of the West German apprenticeship system's contribution to the Federal Republic's strong economic performance.

EDUCATION AND THE WEST GERMAN CONSTITUTION

Legislative responsibilities in West Germany are allocated by its constitution — the Basic Law of the Federal Republic of Germany. According to the Basic Law, primary responsibility for education legislation and the administration of the school and university systems rests with the country's eleven Lander (provinces).

The federal government has the authority to issue regulations for German universities, to financially promote school and university attendance, and to legislate in regards to vocational training that is not given in schools.

This relatively clear-cut division of legislative authority has failed to produce the "water-tight" legislative compartments we would expect the constitutional separation of powers to accomplish since the Basic Law also permits Federal/Lander co-operation on education planning.

This intergovernmental co-operation has been embodied in the Federal Government/Lander Commission for Education Planning and Research Promotion. The Commission includes seven representatives of the federal government (eleven votes) and one representative from each of the eleven Lander (a total of eleven votes). In 1973, the Commission drafted a joint plan for the co-ordinated development of the entire educational system through to 1985.

The Basic Law also encourages intergovernmental co-operation in the field of education between the Lander governments. The German constitution commits the Lander to work together to preserve unity of the law and to ensure uniform living standards throughout the Federal Republic. In order to fulfill this commitment in regards to education, the Lander established the Standing Conference of Ministers of Culture and gave this conference the goal of standardizing ". . . the school and university systems of the individual Lander in their structures, institutions, content and leaving certificates." (2) This expression of co-operative action has created relative uniformity in the education offered and comparable school-leaving qualifications.(3)

* * * * *

SECONDARY SCHOOLING IN THE FEDERAL REPUBLIC: THE IMPORTANCE OF THE DUAL SYSTEM

Against this backdrop of the educational responsibilities of West Germany's national and regional governments, let us now consider the country's secondary school system and more particularly, that system's provision of an apprenticeship training option.

Upon completion of their primary schooling (4) German children are obliged to attend secondary school on a full-time basis until they reach 15 years of age. Four general secondary school options are initially open to the primary school graduate. They are: the Hauptschule (secondary school) which offers Grades 5 - 9; the Realschule (secondary modern school) which offers 5 - 10; the Gymnasium (grammar school) which offers 5 - 13; and the Gesamtschulen (comprehensive school) which covers Grades 5 - 10. (5) Grades Five and Six of these general schools encourage and guide all pupils in regards to their future school career. This guidance orientation is augmented by studies of the world of work (Arbeitslehre).

Once nine years of full-time schooling have been successfully completed, a majority of Germany's youth enter what has come to be known as the dual system — a system of on-the-job apprenticeship training linked to part-time studies in a vocational school. (6)

Although compulsory full-time education is not obligatory past the age of fifteen, those who discontinue their full-time studies at this age are still required, as a rule, to attend school on a part-time basis for an additional three years. Anyone who does not voluntarily continue their full-time secondary education must attend a vocational school on a part-time basis.

In 1975, 2.555 million students were enrolled in senior secondary studies; 1.328 million of these young people were classified as trainees in the dual system. In this same year, only 474,000 students were enrolled in the senior secondary grammar school program — the program that provides German children with university entrance qualifications. (7)

TABLE 6 (Page 36) demonstrates that these 1975 figures are not an aberration but are rather indicative of the importance accorded traditionally to apprenticeship and vocational training in the Federal Republic of Germany.

The popularity of the vocational training option in German secondary schools must come as a surprise to most of the people who are only acquainted with the Canadian secondary school system and our system's emphasis on preparing pupils for entrance to university. The popularity of the dual system is due to the emphasis German society places on the importance of vocational training to individual and national development. In fact, West German authorities regard vocational training as more than a privilege or an educational alternative — it is a right of citizenship. The Vocational Training Act of 1969:

Table 6

ACTIVITIES OF YOUNG PEOPLE, GERMANY, 1960 - 1974:
 PROPORTION OF YOUNG PEOPLE AGED 15 - 18 IN EACH ACTIVITY (8)

| YEAR | APPRENTICE, | OTHER WORK/ UNEMPLOYED | FULL TIME VOC. ED. | GYMNASIUM | OTHER GEN. ED. | TOTAL NO. 15-18 |
|------|-------------|---------------------------|-----------------------|-----------|-------------------|--------------------|
| 1960 | 46.7 | 10.7 | 9.2 | 7.3 | 26.1 | --- |
| 1961 | 47.6 | 10.5 | 9.6 | 7.4 | 25.9 | --- |
| 1962 | 48.7 | 10.5 | 9.8 | 7.0 | 24.0 | 2,700,000 |
| 1963 | 51.2 | 11.2 | 10.1 | 6.6 | 20.9 | 2,700,000 |
| 1964 | 48.4 | 10.4 | 9.8 | 6.0 | 25.4 | 3,000,000 |
| 1965 | 47.3 | 10.1 | 10.0 | 6.4 | 26.2 | 3,100,000 |
| 1966 | 46.1 | 9.1 | 10.3 | 7.1 | 27.4 | 3,200,000 |
| 1967 | 47.5 | 8.6 | 11.3 | 8.6 | 24.0 | 3,200,000 |
| 1968 | 47.4 | 8.0 | 11.8 | 9.0 | 23.8 | 3,200,000 |
| 1969 | 44.0 | 7.1 | 12.6 | 9.3 | 27.0 | 3,200,000 |
| 1970 | 43.0 | 6.8 | 13.3 | 9.9 | 27.0 | --- |
| 1971 | 41.7 | 6.2 | 14.9 | 10.1 | 27.1 | 3,300,000 |
| 1972 | 41.7 | 5.8 | 16.4 | 10.4 | 26.0 | 3,400,000 |
| 1973 | 42.6 | 5.8 | 17.0 | 11.4 | 23.2 | 3,500,000 |
| 1974 | 41.5 | 5.3 | 17.0 | 11.7 | 24.5 | 3,600,000 |

. . . creates a uniform Federal basis for a dynamic vocational education system. By enabling those starting their working life and those already in employment to take advantage of their career and social opportunities in the prevailing technological and economic environment, it serves the cause of the right to vocational education. (9)

After reviewing vocational training in the Federal Republic, the Commission of European Communities identified Germany's training program as an approach in which individual and national interests converged and were satisfied:

For young people, vocational training is an important prerequisite for their personal and vocational development. Their prospects in work and life are permanently affected by the vocational qualifications achieved. Skilled training must also be secured for all young people for economic and social reasons. A well-trained rising generation of skilled workers is vitally important for the economic strength of the Federal Republic of Germany. (10)

Further to this point, the OECD declared that West Germany's activist apprenticeship program:

. . . is based on the view that the economy will need these extra skilled workers because the demographic trend for the later 1980's will result in inadequate numbers of young people for apprenticeship training. (11)

This strong causal linkage between a vibrant apprenticeship training system and individual/national prosperity is consequently central to the explanation of the dual system's popularity among students and educators alike.

The dual system's combination of part-time studies at a vocational school and on-the-job apprenticeship training is the link between compulsory part-time school attendance and apprenticeship. In the mid-1970's, the vocational school component of the dual system came under some criticism from the Manpower and Social Affairs Committee of the OECD. After noting that the part-time vocational schools were the most important element in the Federal Republic's institutional vocational training approach⁽¹²⁾ the Committee complained that the dual system overemphasized its industrial training portion to the detriment of the vocational school component.⁽¹³⁾

The Committee's critique was undoubtedly founded on its members' belief in the importance of general education to the career prospects of apprentices. (14)

This type of criticism does not seem to have fallen on deaf ears. Since the findings of the OECD Manpower and Social Affairs Committee were published in 1974, the German authorities have strengthened the general education component of the dual system. In addition to vocational programs aimed at giving the student a theoretical background in his apprenticeable trade, the part-time vocational schools offer general courses in the German language, economics, social studies, politics, religion, culture, and sport. (15)

Approximately 60 per cent of the instruction received by apprentices in the part-time vocational schools is technical; the remaining 40 per cent of the vocational education program is made up of general educational instruction.

West Germany's positive response to this muted criticism of the dual system can also be measured by the move to increase the amount of time a dual system apprentice spends in the classroom. In 1974, the OECD Manpower and Social Affairs Committee observed that apprentices generally only attended the part-time vocational school for one day a week. (16) Five years later, the OECD acknowledged the improvements being made to this aspect of vocational preparation:

The German plan for educational development until 1978 calls for a much reduced teacher-pupil ratio in the vocational schools (Berufsschulen) of 1:13 and a 50% increase in the time spent at school (from an average of 8.4 hours a week to 12). (17)

This theoretical aspect of an apprentice's training may be delivered in a number of ways; either through several days of classroom study every week or through a block release format in which the trainee attends classes daily for a period of several weeks or possibly months. (18)

When an apprentice is not engaged in part-time vocational studies, he is participating in on-the-job industrial training in one of the approximately 460 trades that are officially recognized by the government. This cycle of sporadic studies and industrial training lasts for the 2½ to 3 years which it generally takes to complete an apprenticeship.

The industrial training aspect of the apprenticeship system is governed by the Vocational Training Act of 1969. In a 1974 review of this legislation, the German authorities stated that the Vocational Training Act:

. . . affirms the dual system of training in the plant and in part-time vocational schools and brings it into line with modern conditions in society and industry. (19)

This Act outlines the obligations and responsibilities of employers who have apprentices. It stipulates that an initial training contract must exist between a trainee and an employer before the apprenticeship can begin.

This contract must contain, at a minimum:

1. *The nature, syllabus, timetable and purpose of the training, and especially the form of occupational activity for which the training is to be provided;*
2. *The commencement and duration of the training;*
3. *Any training programs to be followed outside the training premises;*
4. *The length of the normal daily hours of training;*
5. *The length of the period of probation;*
6. *The payment of remuneration and the rate to be applied;*
7. *The amount of leave;*
8. *The conditions in which notice may be given of the termination of the contract. (20)*

During the course of the apprenticeship, the apprentice is given the free time needed to attend vocational school; employers are prohibited from giving their apprentices unskilled work or work that is unrelated to their training program.

Although the federal government is ultimately responsible for the issuance of training regulations that are binding upon industry, both employers and unions are able to influence national apprenticeship policy through their presence on vocational education committees. In fact, one report on the apprenticeship policies of OECD countries, asserted that West Germany and other OECD nations leave:

. . . a large measure of control over the apprenticeship system to the advisory or regulatory bodies on which employer and trade union representatives exercise an important or decisive influence. (21)

In West Germany, this tripartite partnership is one of the most striking features of the apprenticeship system. Vocational training committees at the Federal, Land, and Chamber levels contain equal numbers of representatives from the employers, trade unions, and public authorities. Instructors from the training schools sit on these committees in a purely advisory capacity.

These committees are responsible for co-ordinating the activities of all the parties interested in vocational training. (22) Quite a remarkable consensus exists between government, employers, and trade unions about the fundamental importance of vocational training. As Klaus Weiermair notes in regards to West German trade unions:

. . . the position of German trade unions to questions of educational and training reform is almost an exact replica of the arguments supplied by the proponents of the reform in the government. (23)

The tripartite arrangement also characterizes the apprenticeship examination boards. These boards of examiners must contain at least three members. If no more than three members are appointed to an examination board, the board will contain one representative from the relevant employers' group, one employee representative, and one vocational school teacher. At least one vocational school teacher must sit on all examination boards and no fewer than two-thirds of any board's members must be drawn from employers' and employees' representatives. (24)

The workability (25) of the industrial training portion of the dual system is also enhanced by a federal law that, since its introduction in 1976, has helped to ensure that enough training places are provided for young trainees. Entitled An Act to Promote the Provision of Training Places in Vocational Training, this legislation stipulates that an inventory of the number of training places offered and needed must be conducted every year.

In the event that the number of training places offered is not at least 12.5 per cent higher than total demand, and that no substantial improvement in the supply/demand ratio is expected during the next year, a vocational training levy of no more than .25% of payroll, may be charged against certain firms. The funds generated by this levy will be distributed among those firms willing to provide additional training places. (26)

Earlier we mentioned that there are approximately 460 state recognized trades in West Germany. They are, however, by no means equal in either popularity or economic importance. In fact, figures for 1975 show that nearly 51 per cent of all male trainees were apprentices in only 15 trades; similarly, the 15 most popular trades among female apprentices contained 75 per cent of the female apprentice population. (27)

More than one-half of the apprentices in the dual system learn their trade in enterprises with fewer than 50 employees. Because of their relatively small size, some of these businesses can only offer their apprentices very specialized skills — they may be unable, by themselves, to provide their trainees with all of the training conditions established by the Vocational Training Act. To combat this situation and to prevent extreme vocational specialization, the Act specifies that in-house vocational training may be supplemented by training from inter-firm training centres. In 1979, these centres gave over 50,000 trainees the opportunity to broaden their skills. (28)

Adaptations such as the inter-firm training centres increase the worth of a graduating apprentice's certificate because the skill development opportunities they provide increase the mobility of a graduate from the dual system. The OECD noted that:

. . . the major difference in Germany, Austria and Switzerland is in the easy mobility among occupations. The completion of an apprenticeship in itself is a credential, widely accepted by an employer as evidence of good work habits and an ability to learn. Under the favourable conditions of full and overfull employment and the absence of craft union restrictions, few complaints arose about restrictions on occupational mobility. (29)

* * * * *

CONCLUSION:

THE DUAL SYSTEM — AN EFFECTIVE WEAPON AGAINST YOUTH UNEMPLOYMENT

Throughout this Chapter, our attention has been focussed upon the secondary school apprenticeship program — the so-called dual system — that is such a prominent feature of West Germany's approach to manpower education. This apprenticeship system's high popularity with German students and educators would seem to be equalled by its effectiveness. The Adams Commission observed in this regard that:

German employers stand firmly behind this system and the German Employers' Federation has been working hard to expand the number of training places. There is a general consensus in Germany that this system is in large part responsible for the efficiency of German industry and for Germany's incredible economic recovery following World War II. (30)

While the German apprenticeship system has fostered Germany's strong economic performance, it has simultaneously reduced the severity of the type of human resources paradox that plagues our country. We may infer that the popularity of the dual system deserves some of the credit for the very small percentage of German young people who are unemployed.

Some appreciation of the relative absence of youth unemployment in West Germany between the years 1960 and 1974 can be gained from the data presented earlier in TABLE 6. The percentages reported in the second column are even more impressive considering that they include young people employed outside of the secondary school system.

The dual system's combination of compulsory part-time vocational school instruction and apprenticeship training provides Germany's youth with a productive educational alternative that is not generally available in Canada. This apprenticeship system must be regarded as a feature of German society that has both held youth unemployment to levels far below those suffered by Canada (31) and helped Germany develop the skills our contemporary economic world demands of an industrialized nation.

* * * * *

CHAPTER V

TOWARDS A NATIONAL APPRENTICESHIP POLICY IN CANADA

To this point, we have maintained that certain characteristics of our secondary school system have contributed to the emergence of the severe human resources paradox that Canada is now gripped by. Moreover, we have suggested that the incorporation of apprenticeship training within West Germany's high school system has helped that federation ease the pressures responsible for the blossoming of this type of paradox.

These earlier arguments form the basis for this Chapter's recommendations that Canada's federal and provincial governments should collaborate in an effort to strengthen the ties between secondary education and working life.

Later in this Chapter, we will present our hope that these governments can be persuaded to develop jointly an educational alternative which offers our youth the option of beginning an apprenticeship during their secondary school years.

From there, the paper will examine the role the federal government may play in transforming this alternative into a reality. We will conclude by recommending several steps towards bringing a national apprenticeship policy to life. However, before exploring these areas, let us first consider the need for strengthening the ties between education and working life.

* * * * *

THE NEED TO STRENGTHEN THE LINKAGE BETWEEN EDUCATION AND WORKING LIFE

Our look at Canada's human resources paradox has convinced us that the paradox can only be positively addressed by strengthening the ties between secondary school and working life. Currently, these ties represent the 'maladjustment' between education and working life that the OECD identified in its report on future educational policies.(1) Such maladjustment between education and working life produces secondary school graduates who are poorly equipped to compete for jobs.(2)

This maladjustment has become so severe that, because of their limited employment prospects, our youth are in danger of becoming a marginal sector of the population. (3) Because a significant number of secondary school students do not finish their high school studies (4) it is appropriate to consider improving the relevance of their education to their future working lives as a way of encouraging them to complete their secondary schooling. (5)

The effort to redress this maladjustment requires, as a preliminary step, the recognition of society's responsibilities to give its youth the opportunity to acquire a balanced vocational education. I think we must accept the validity of an idea that the OECD urged its members to consider; namely, that:

. . . for both social and economic reasons, society has a responsibility for providing all young people with a full vocational or professional qualification utilisable on the labour market, upon which their further education and retraining may build. (6)

To give effect to this idea, we must increase the prominence attached to the vocational preparation function by our secondary school curricula. That Canada's secondary school curricula gives insufficient prominence to this function was stressed earlier in this paper. Any strengthening of the bonds between education and working life demands that we strike a better balance between preparing our youth for university education and preparing them for working life during their stay in the secondary school system.

The eventual success of an effort to strengthen the linkage between education and working life depends ultimately upon our acceptance of a more flexible definition of secondary education — one that recognizes the value and merit of instruction offered outside of the traditional setting of the secondary school. Because of rapid technological change, it has become imperative to shift our vocational preparation efforts towards the area most affected by this change — industry itself. Increasing the importance of the vocational preparation function necessitates the acceptance of this more flexible interpretation of secondary education according to which, instruction in the workplace is a valuable educational alternative.

We are not alone in emphasizing the need to strengthen the linkage between education and working life through enlarging the vocational component of secondary schooling. Earlier, we identified the interim report of Ontario's secondary education review project as a proposal that, in part, supports strengthening the vocational education function of secondary schools.

The Canadian School Trustees' Association memorandum "Bridging the Gap Between School and Work", cited earlier, also articulates the need to increase the relevance of schooling to employment opportunities. The OECD, in the study Education and Working Life, asserted that there is ". . . an urgent need to make upper secondary education more directly relevant to entry to working life."(7) The Adams Commission devoted much of its investigation to an examination of ways in which the relationship between education and work could be improved.(8)

In testimony given during the Standing Senate Committee on National Finance's investigation of Canada Manpower, Dr. William Dymond, the Deputy Director of the OECD's Social Affairs Directorate, spoke of developing a new institutional arrangement in order to improve the relationship between education and work:

There has to be some new approach to gearing education to employment. We are stuck with two very rigid institutional structures now, the manpower training structure and the educational structure . . . we have to invent ways of coming to grips with this problem of the interrelationship between education and the labour market in effective ways . . . somehow institutionally we will have to bridge this gap and that will have financial consequences for both levels of government.(9)

Few will quarrel with his suggestion that institutional modifications are needed in order to strengthen the linkage between education and working life. Yet, institutional tinkering alone will not guarantee success. A comprehensive approach towards translating this need into workable policies must include measures directed at improving the attitudes of young people towards skilled blue-collar employment.

In their study of Canadian educational policy, the OECD external examiners identified several problems that they felt would have a major bearing upon the future development of education in Canada. One such problem was the tendency to depreciate the status of manual work.(10)

This same tendency was also pointed out by several of the participants in the B.C. Government's Prince George seminar on skilled labour shortages. British Columbia's Labour Minister felt that the elimination of skilled manpower shortages depended in part upon improving the public's perception of skilled labour's importance. One problem he identified was that:

. . . the environment in which our young people mature has been placing an overwhelming emphasis on the merits of a college education. This is not my language, but it's certainly somebody else's, who I think said it correctly 'that it's our obligation to persuade young people that the blue-collar trades are a good alternative to white collar under-employment'. (11)

Another participant, a representative of the Northern B.C. Construction Association, also stressed the important relationship between attitudinal change and directing more young people into the skilled trades. Mr. Sorenson argued that:

We must make it exciting and attractive to become a tradesman in the first instance and we must, with all available means and as soon as absolutely possible, remove the last remaining notions that a vocational career is somewhat secondary and really only for people who lack the talent to pursue an academic career that, in many instances, offer much less financial security, challenge or excitement. (12)

These judgements and recommendations, when combined with the evidence of high youth unemployment and skilled labour shortages presented in Chapters Two and Three, point to the serious need to strengthen the linkage between our secondary education system and working life. For this need to be satisfied, we must consider modifications to the institutional arrangements and the curricula of our secondary school system that enhance the prominence of the vocational preparation function.

As we have also tried to show, satisfying the need for stronger ties between education and working life will also depend upon policies that serve to improve the public's perception of skilled labour careers.

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APPRENTICESHIP IN SECONDARY SCHOOL: ONE STEP TOWARDS SOLVING CANADA'S HUMAN RESOURCES PARADOX

This section builds upon our conclusion that Canada's human resources paradox must be addressed through strengthening the ties between secondary schooling and working life. The option of apprenticeship training in combination with compulsory part-time vocational secondary school instruction, analogous to West Germany's dual system, is our preferred means of strengthening these ties.

Before presenting this choice in more detail later in the Chapter, we will first offer the reader an explanation for our preference of apprenticeship over other vocational training options. Material indicative of the general support the apprenticeship alternative enjoys follows that explanation. Let us now proceed with the consideration of the range of possible vocational training alternatives.

Once we accept the conclusion that:

Technical and vocational education and training is one of the more important policy instruments that brings the worlds of education and work closer together. They are forms of instruction which provide major means of raising the productive capacity and efficiency of the economy and of enterprises, improving individual well-being and of helping to correct social disparities in employment. (13)

a decision must be made regarding the site at which this expanded training effort should take place. In Canada, we have traditionally postponed the beginning of vocational training until the commencement of post-secondary education. British Columbia's community college network and Ontario's Colleges of Applied Arts and Technology testify to this practice.

For the most part, these institutions have been a successful experiment in the delivery of vocational training. I have no doubt that their operation has reduced the country's youth unemployment problem and has provided industry with much-needed skilled labour. However, they have not been immune to criticism. The Adams Commission discovered that:

By and large, employers are not satisfied with the products of the post-secondary system. They feel that the education provided is often too theoretical and impractical. (14)

This criticism highlights one of the weaknesses of a vocational training approach which concentrates upon institutional training. Such training may not have the practical flavour demanded by the job in its accustomed industrial setting.

It was the Senate Committee on National Finance that concluded that industrial training enhanced a worker's employment opportunities to a greater degree than did institutional skill training. (15) The Senate Committee's investigation of Canada Manpower argued that, "For the job seeker, there are benefits in employer-centered instruction over institutional instruction in terms of both financial reward and experience gained." (16) The Committee recommended subsequently:

It is now time that a substantially increased proportion of training financed by the (Manpower) Division should take place in the employment environment as opposed to the community college classrooms. (17)

Canada's community colleges are sensitive to this type of criticism and they have improved the relevance of their institutional offerings to the requirements of the labour market. Our hesitance to recommend an expansion of the post-secondary vocational training network therefore rests less upon the reservations of business leaders than upon another feature of post-secondary education in Canada — the fact that only a relatively small percentage of Canadians enroll in post-secondary studies of any sort.

The 1976 mini-census found that only 29 per cent of the country's out-of-school population had engaged in any post-secondary schooling. Only approximately 18 per cent had received a post-secondary degree or diploma. (18) Since relatively few Canadians reach the level at which serious vocational training is offered, it would seem to be more productive to offer a comprehensive vocational education option at a level where more young people could take advantage of it. We therefore believe that vocational training at the post-secondary level should be supplemented by similar training at the secondary level.

However, we also believe that, where community colleges possess the technical expertise and equipment needed to deliver the instructional portion of an apprenticeship, the vocational education component of the apprenticeship could be delivered in the community college setting. The option of taking this component of an apprenticeship in the community college environment may also help to overcome the stigma of blue-collar work. This use of existing facilities would also reduce the need to build additional schools and educational facilities.

A second alternative to our preference for adapting apprenticeship training to the secondary school system would be an expansion of training in industry. One of the strengths of this alternative is its adaptability to the demands of the labour market. (19)

Since the Economic Council of Canada reported that only 19 per cent of the firms contacted by the Human Resources Survey offered training programs of one year or longer, there is certainly room for this type of expansion. (20) The Adams Commission endorsed the worth of employer-centred training in its final report. A training levy against Canadian firms was recommended by this Commission as the means by which government could guarantee that employers would fulfill their vocational training responsibilities. (21)

Our support for the apprenticeship alternative reveals our sympathy to the argument that industry-based training should be expanded. We are also willing to concede that a universal payroll levy against industry may be required to expand training-in-industry. However, we cannot unequivocally support the conventional training-in-industry approach for several reasons.

In the first place, while the expansion of training-in-industry seems certain to alleviate our skilled manpower shortage, it does not necessarily guarantee that the second element of Canada's human resources paradox — youth unemployment — will be directly addressed. It does not guarantee that industry will focus its expanded training efforts upon Canada's unskilled youth.

Secondly, by throwing the responsibility for vocational training into the lap of industry, we would be denying that government has a responsibility to give the students of the secondary school system the opportunity to acquire vocational qualifications. The education system must share part of the government's general responsibility:

. . . to ensure that adequate opportunities are available for all new entrants to the labour force to acquire a basic occupational training and for adults to obtain further training, and that enterprises are not compelled to reduce current or potential production for lack of appropriately capable manpower. (22)

While we are prepared to endorse the training-in-industry approach and the tripartism essential to its success, we must insist that such industry-based training be adapted to our secondary school system.

The general argument in favour of apprenticeship training is supported by various sources. In effect, apprenticeship straddles education and working life. Because apprenticeship training ". . . is a means of easing the transition from school to working life and introducing young people to adult roles and responsibilities in employment" (23) it may be regarded as a prime example of the combination of work and study. (24)

The Department of Employment and Immigration's summary of the Robertson, Nickerson Group Associates survey of skilled labour in manufacturing pointed out the positive impact apprenticeship training may have upon skilled labour shortages. One attractive characteristic of apprenticeship noted in the summary report was its provision of ". . . a relatively rapid means of providing a domestic supply of specially skilled workers" (25)

Although the Adams Commission quite rightly pointed out that apprenticeship does have its problems and is certainly not a panacea (26) it reported that many of the groups it contacted favoured strengthening apprenticeship:

. . . there is a general consensus that apprenticeship training should be maintained and expanded. Most of those who spoke of apprenticeship to the Commission agreed that the combination of on-the-job experience and in-class instruction was an excellent approach to vocational training. (27)

Later in its report, the Commission made the following recommendation:

Apprenticeship training and other industrially-based programs leading to higher occupational qualifications should be made more available. Programs which combine practical experience and academic education and lead to legitimate certificates, diplomas and degrees are particularly recommended. (28)

One important reason for our advocacy of apprenticeship training is the support this approach has received from various trade unions and their representatives. The Robertson, Nickerson survey of industrial training discovered union backing for efforts to increase the accessibility of industrial training to young Canadians. (29) In his presentation to the Prince George seminar on skilled labour shortages, Mr. Simmonds of the United Steelworkers of America announced his local's support for apprenticeship:

A way for our young people to begin trades training at the high school level must be found. At present, many hours of training in related vocational programmes at high school are not counted towards an apprentice's training and are therefore wasted hours. We are prepared to help design a system whereby certain apprentice skills are taught at the high school and college level and credit given towards a particular trade. (30)

An equally enthusiastic expression of trade union support for increased apprenticeship training was contained in the minority report of Mr. M. Rygus, Vice-President of the International Association of Machinists and Aerospace Workers, to the report by the sector task force on the Canadian Aerospace Industry. Rygus recommended that, "Job training programs should be offered in the first year of the secondary school," (31) and that "Apprenticeship training should be recognized as part of our educational system." (32)

Much of the basis for our advocacy of apprenticeship training rests with opinions such as these and with our conviction that the apprenticeship alternative, if implemented, will reduce the severity of the current labour shortages in the skilled blue-collar occupations. If the apprenticeship alternative is to be of maximum benefit in reducing youth unemployment, the other element of the human resources paradox, it should be introduced, as recommended by the sampling of opinion just recorded, at the high school level.

In their examination of Canadian educational policy, the group of OECD external examiners reported that the role of practical and technical evaluation in the education of Canada's young people needed vigorous and creative rethinking.⁽³³⁾ Apprenticeship training in combination with compulsory part-time secondary schooling is such a creative alternative.

Because our secondary school system now disappoints nearly one-third of its students, it is time to introduce a new vocationally-oriented alternative to the conventional secondary school curricula. Since the majority of Canadians have not, in the past, ventured into post-secondary studies, it is essential that this alternative be adapted to our traditional secondary education network.

Some may wonder whether students going into Grade Ten or its equivalent are mature enough to be able to select the study plan best suited to their personal development and their aspirations. My talks with secondary school students lead me to believe that we underestimate their ability to make initial career decisions which are in their best interests. I believe that the OECD observation that:

The scope for providing work experience for upper secondary students is wider than for those in compulsory education, simply because they are older, further advanced in adolescence, have had relatively longer to become consciously interested in themselves and in abstract ideas and learning, are relatively better placed to consider the choice of an initial job or even of a career, and more likely to be of use to employers.⁽³⁴⁾

is as applicable to Canada's youth as to the youth of any other OECD nation. Moreover, we do not believe that by merely offering a secondary school alternative that combined on-the-job training with part-time schooling, students would be faced with an either/or decision. The general education component of a part-time school program could be structured so as to allow students who became dissatisfied with the apprenticeship alternative the opportunity to rejoin the non-apprenticeship program.

By introducing a Canadian version of the dual system into today's secondary schools, we may be able to reduce the stigma that is unfortunately still attached to blue-collar labour. Canada's national high school apprenticeship policy should be placed on an equal footing with the customary academic pursuits. Successful completion of an apprenticeship within high school should entitle the graduate to proceed to the next level of vocational education. (35)

It is our hope that Canada's governments will try to adapt this apprenticeship alternative to senior secondary studies. We firmly believe that the introduction of this educational alternative would be a positive step towards solving the human resources paradox that plagues our youth and threatens our economic future.

We also hope that Canada's businesses and unions will embrace the apprenticeship alternative. Inasmuch as apprenticeship training will reduce the damaging impact of skills shortages upon industrial productivity, it may contribute to increased savings over the long-term for businesses whose growth is now constrained by manpower shortages.

* * * * *

A FEDERAL ROLE IN A NATIONAL APPRENTICESHIP POLICY

Section 93 of the British North America Act reads in part that, "In and for each Province the Legislature may exclusively make laws in relation to Education" Provincial legislative responsibility for education was one of the fundamental conditions of Quebec's acceptance of the Confederation bargain of 1867. Since Confederation, our constitution has recognized that the provinces, not Ottawa, are responsible for educational affairs.

Given this clear expression of provincial rights, there is little constitutional justification for federal participation in the apprenticeship training policy proposed in this paper or, for that matter, any other federal foray into the field of education. Yet, when one looks away from the British North America Act's divisions of jurisdiction towards the reality of contemporary Canada, one perceives an educational reality quite different from that prescribed by our constitution.

In Canada today, the federal government plays a major role in the area of education. Preliminary calculations for the 1980/81 fiscal year show that Ottawa will transfer over \$3 billion to the provinces in support of post-secondary education; (36) figures for this same fiscal year reveal an additional transfer of \$178.4 million to the provinces in aid of language programmes; the projected cost of education programs for native people is \$268 million for the 1980/81 year; the federal manpower bill for this year is estimated at \$817.0 million. (37)

In fact, if aid to research, students, and several other groups is added to these figures, the federal expenditures on matters related to education in the 1980/81 fiscal year amounted to nearly \$5 billion. (38) Despite the language of the constitution, the federal government has a substantial financial presence in the field of education.

This formidable federal presence is due to many factors, the most important of which is the fact that public policy in the modern world cannot be confined to the neat legislative compartments created in a simpler era. Federal responsibility for many economic matters and its concern for creating a national identity quickly heightened Ottawa's interest in education insofar as education could be used as a tool in the fulfillment of these interests.

We do not presume that the strict interpretation of the British North America Act legitimizes our recommendation that the federal government help to develop a national apprenticeship policy. We feel nonetheless that Ottawa has a legitimate interest in promoting such a policy because of federal responsibility for the economy, federal responsibility for manpower training, and federal responsibility for unemployment insurance--three responsibilities that are intimately linked to the apprenticeship proposal.

While the British North America's division of legislative powers may raise a substantial barrier before the national apprenticeship policy favoured here, this obstacle is not insurmountable. The British North America Act does not prohibit intergovernmental co-operation on projects of mutual interest, a fact that is attested to by the many intergovernmental agreements and accommodations successfully drafted and implemented in the post-war period.

Neither does this Act prevent one government from initiating discussions with its counterparts at another level on an issue which touches them both. The proposal for establishing the national apprenticeship policy is certainly one that is of profound interest and importance to Canada's federal and provincial governments.

The need for using an intergovernmental approach to tackle Canada's manpower training challenges has been identified elsewhere. (39) For the reasons cited above, this need is no less central to the development of the national apprenticeship policy. We therefore find ourselves repeating a recommendation made by the Adams Commission in 1979; namely, that:

. . . the federal government initiate discussions with the provinces and with representatives of organized labour, industry and education with a view towards developing a comprehensive approach to the education and training problems of working Canadians. (40)

In our opinion, Ottawa's role in the development of a national apprenticeship policy should begin with the convening of a National Vocational Education Conference. This first step towards a national apprenticeship policy would see Ottawa follow the precedent of the National Pensions Conference and invite provincial governments, industry representatives, trade union leaders, and educators to comment on the proposal to establish on-the-job training and part-time schooling as a major secondary educational alternative.

Earlier we noted that another federal state, the Federal Republic of Germany, has developed the apprenticeship training alternative preferred here as a strategy to combat the pressures responsible for our human resources paradox. This development has occurred in Germany despite the constitutional prescriptions found in the Basic Law.

Our analysis of the West German dual system was presented here because this system demonstrates that intergovernmental co-operation can overcome constitutional obstacles. One of the most conspicuous features of the Federal Republic's vocational education system is the manner in which federal activity complements Lander activity. This co-operation is fundamental to the effectiveness of the West German training system.

In Canada, our governments must try to devise structures through which this complementarity between federal and provincial policy may blossom in the field of apprenticeship training. The national vocational education conference should therefore wrestle with the question of how existing institutional and administrative arrangements may be modified or adapted in order to enhance federal/provincial complementarity.

One item on the conference agenda should be the consideration of establishing a tripartite national agency that would establish the general guidelines for the national apprenticeship policy. This planning body should contain representatives from both senior levels of government, industry, and labour. (41) Its immediate task would be the development of a priority program for apprenticeship.

At this conference, Ottawa should initiate discussions on creating tri-partite commissions at the provincial level in order to operate the apprenticeship policy and to guarantee that the apprenticeship system complements the characteristics of the provincial economy.

One option that we feel should be seriously considered is a variation of the federal/provincial manpower needs committees now used in the delivery of federal manpower training programs.

These "apprenticeship commissions" would be constituted on a provincial basis; the number of commissions would vary according to the diversity of the provincial economies. For example, British Columbia's apprenticeship commissions would include, among others, ones for the forest industry and the mining industry. Each commission would be composed of federal, provincial, industry, trade union, and vocational training representatives.

Once established, these commissions would assume responsibility for developing individual apprenticeship training programs, inspecting apprenticeship training, and drafting and supervising apprenticeship examinations.

They would also be responsible for ensuring that the shop floor/classroom training ratios are flexible enough to meet the needs of particular industries. These extensive responsibilities would be delegated to these commissions in recognition of the strong possibility that provincially situated officials of industry, unions, and government will be the most sensitive to local needs and conditions.

This conference should also consider the financing of this apprenticeship policy. Earlier, we conceded that a training levy may be necessary in order to prod industry into offering more training. This conference should consider the extent to which industry should contribute to the costs of the industrial portion of an apprenticeship-in-secondary school program and whether or not a training levy will be needed to increase the number of training places in industry to meet the demand for apprenticeship. The costs of the institutional segment of apprenticeship should be shared by Ottawa and participating provinces.

Two other items for this conference to consider are the legislation of apprentice/journeymen ratios and the bestowal of special status to student apprentices. It is our belief that apprentice/journeymen ratios should no longer be subject to collective bargaining.

Instead, the federal and provincial governments should co-operate in drafting legislation stipulating apprentice/journeymen ratios for individual industries and trades. In recognition of the student status of apprentices, legislation should be prepared to ensure that apprentices are not the first group to be subjected to layoff.

The conference should also focus its attention upon the question of changing the public attitude towards skilled blue-collar labour. Ottawa should invite the provinces, industry, and unions to join it in mounting an advertising and public information campaign that would promote the blue-collar trades by giving the public some idea of the benefits of blue-collar employment. Ottawa should devote some of the \$60 - 70 million it will spend on advertising this year towards this non-partisan style of advertising. (42)

This section has attempted to present a practical role for Ottawa to play in the development of a national apprenticeship policy. At the outset, Ottawa should restrict itself to initiating discussions with other key actors with a view to convincing them of Ottawa's willingness to support a national apprenticeship program in our high schools.

Ottawa must ensure the other participants in these discussions that while it is in favour of the concept of this policy, it is willing to see the specifics of the program prepared jointly by all interested parties.

If Ottawa strives to establish this atmosphere of co-operation, a federal/provincial secondary school apprenticeship program may be added to Canada's list of intergovernmental ventures and we may be one step closer to eliminating our human resources paradox.

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CHAPTER VI

Conclusions and recommendations

In Chapter V of our paper, we expressed our belief that Canada needs to both introduce a national apprenticeship program and adapt this program to our secondary school system. This general recommendation is made in light of the destructive impact wrought by today's human resources paradox upon the futures of our youth and economy.

We strongly believe that such an apprenticeship alternative would alleviate youth unemployment through its offer of job training to the significant number of young people who now drop out of secondary school before graduation. This apprenticeship alternative also promises to improve the supply of the necessary blue-collar skills now in such short supply.

The combination of apprenticeship training and part-time schooling is also recommended on the basis of the impressive track record of West Germany's dual system. We believe that the strong economic performance and low rate of youth unemployment recorded by West Germany and other countries using similar techniques is directly related to their vocational training success.

In this paper, we have confined ourselves to describing our human resources paradox and to recommending that a national apprenticeship policy would be an important ally in our battle to eliminate this social blight. Our emphasis upon apprenticeship is not meant to suggest that apprenticeship is a panacea for this particular ill. Other initiatives, such as improving our projections of labour supply and demand, are also vital to the effort to eliminate this paradox.

We hope that the following specific recommendations will be considered by governments, industry, and labour in order that we may provide our young people with the bright future they deserve:

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- (1) In order to eliminate the human resources paradox of high levels of youth unemployment and severe skilled labour shortages Canada is now experiencing, and as an essential step towards developing an effective industrial strategy, an apprenticeship training program should be introduced into our high schools.
 - (2) The apprenticeship training program should offer senior secondary students the opportunity to combine on-the-job training with continued part-time vocational and general education in the school system.
 - (3) The national apprenticeship program should be funded jointly by the federal government, the participating provincial governments, and industry.
 - (4) The proposal to establish this national apprenticeship policy should be the topic of discussion at a National Vocational Education Conference sponsored by the federal government. Provincial governments, industry representatives, trade union leaders and educators would be invited to participate.
 - (5) The National Vocational Education Conference would be asked to recommend the advisability of establishing tripartite commissions at the national and provincial level to develop a priority program for apprenticeship training and for developing and supervising specific apprenticeship programs.
 - (6) The Conference would also be asked to debate the need to legislate apprentice/journeymen ratios, the need to introduce a training levy scheme, and the need to treat apprentices as students instead of as fully-skilled workers.
 - (7) The Conference should also consider ways to improve the public's attitude towards skilled blue-collar labour.

If these recommendations are accepted and implemented by the respective governments, industries, and trade unions, we are confident that significant savings and benefits will be passed on to all interest parties.

Diversion of public finances into providing an apprenticeship alternative for students who are disinterested in the conventional academic program would constitute a more rational and efficient allocation of tax dollars. More effective public spending would be one consequence of this proposal to improve the product of our secondary school system.

Businesses that may balk at the suggestion that they invest some of their own funds in the apprenticeship alternative must be reminded that a better trained workforce will increase the productivity of their operations. A more knowledgeable labour force is definitely one step towards knocking down the barriers that stand in the way of a more productive Canadian economy.

We thus urge governments and private sector interests to recognize these long range potentials of the apprenticeship alternative and to join forces to create the alternative educational future that many of our young people so richly deserve.



FOOTNOTES

CHAPTER II

- (1) *The percentages in this Table are calculated from the unadjusted labour force statistics in: Statistics Canada, Historical Labour Force Statistics - Actual Data, Seasonal Factors, Seasonally Adjusted Data, (Ottawa: Supply and Services Canada, 1980), pp. 24, 100.*
- (2) *The January and February differences are calculated from the data in: Statistics Canada, Labour Force Information (For the Week Ended January 17, 1981), (Ottawa: Supply and Services Canada, 1981), Table 1, p. 9; Statistics Canada, Labour Force Information (For the Week Ended February 21, 1981), (Ottawa: Supply and Services Canada, 1981), Table 1, p. 9.*
- (3) *The unemployment rates shown in Table 2 are calculated from the data in: Statistics Canada, Historical Labour Force Statistics - Actual Data, Seasonal Factors, Seasonally Adjusted Data, (Ottawa: Supply and Services Canada, 1980), pp. 124, 126.*
- (4) *This Table and its explanatory notes are reproduced from F.T. Denton, A.L. Robb, B.G. Spencer, Unemployment and Labour Force Behaviour of Young People: Evidence from Canada and Ontario, (Ontario Economic Council: University of Toronto Press, 1980), p. 109. Table 3 originally appeared as Table 39 of the Denton et al study.*
- (5) *Denton, Robb, Spencer, Unemployment and Labour Force Behaviour, p. 117.*
- (6) *Ibid., p. 124.*
- (7) *Ibid., p. 198.*
- (8) *Conference Board of Canada Estimate, April 2, 1981.*

- (9) Denton, Robb, Spencer, Unemployment and Labour Force Behaviour, p. 107.
- (10) Ibid., p. 109.
- (11) "Appendix: Extracts from 'The White Paper' on Employment and Income," in Canadian Trade Committee, Canadian Economic Policy Since the War, (Canadian Trade Committee: 1966), p. 135.
- (12) David Crane, "Unemployment Costs Us All," Toronto Star, July 29, 1980.
- (13) Ibid.
- (14) "Where Will the Jobs Come From?" The Economist, Vol. 278, No. 7166, January 3, 1981, p. 46.
- (15) Ann Pappert, "Ottawa's Great LEAP Backward," Canadian Business, November 1980, p. 42.
- (16) Ibid., p. 166.
- (17) George Gilder, Wealth and Poverty, (New York: Basic Books, 1981), Chapter 14.
- (18) Ibid., p. 161.
- (19) Canada, House of Commons Debates, Vol. 124, no. 82, First Session: 32nd Parliament, October 28, 1980, p. 4186.
- (20) Ibid., p. 4186.
- (21) See Government of Canada Press Release, "\$350 Million Special Industry and Labour Adjustment Program," (Ottawa: January 19, 1981).
- (22) Canada, Estimates for the Fiscal Year Ending March 31, 1982, (Ottawa: Supply and Services Canada, 1981), pp. 6 - 16, 6 - 17.
- (23) Ibid., pp. 6 - 16, 6 - 17.

- (24) James Stewart, "Unemployment: Why Don't We Give A Damn?", Montreal Gazette, August 30, 1980.
- (25) Employment and Immigration Canada, Annual Report 1979-80, p. 7.
- (26) Employment and Immigration Canada, Canada Manpower Training Program, p. 1.
- (27) Ibid., p. 1.
- (28) Ibid., p. 1.
- (29) Ibid., p. 2.
- (30) "Job Retraining Programs 'Waste of Money' - MP," Halifax Chronicle-Herald, November 7, 1980.
- (31) Ibid.
- (32) Michael Best, "Is Manpower Training a Failure?," Toronto Star, October 25, 1980.
- (33) Roy J. Adams, "Why Business Should Support a Training Levy Scheme," Worklife, Autumn 1980, p. 24. This conclusion is also found in Canada, Education and Working Canadians: Report of the Commission of Inquiry on Educational Leave and Productivity, (Ottawa: Supply and Services Canada, 1979), p. 99. Hereafter this report is cited as the Adams Report.
- (34) Michael Best, "Is Manpower Training a Failure?."
- (35) See R. Simmonds in British Columbia - The Cabinet Committee on Economic Development, Seminar on Skilled Labour Shortages Held on October 24, 1980, College of New Caledonia (verbatim transcript), (Victoria: Queen's Printer, 1980), p. 12.
- (36) Strategic Policy and Planning, Department of Employment and Immigration, Summary of Consultant Report on Case Studies of Higher-Level Blue Collar Workers in Manufacturing, (December 1978), pp. 3 - 4.

- (37) Ibid., p. 9.
- (38) *British Columbia, Commission on Vocational, Technical, and Trades Training, Report of the Commission on Vocational, Technical, and Trades Training in British Columbia*, (Victoria: Queen's Printer, 1977), p. 28.
- (39) John Cruickshank, "Report Urges Super-Ministry for Education," Montreal Gazette, April 24, 1981, p. 1.
- (40) If Bill C-67 is passed by Parliament, this condition would be dropped if conditions warrant.
- (41) Roy J. Adams, "Towards A More Competent Labour Force: A Training Levy Scheme for Canada," Relations Industrielles, vol. 35, no. 3, 1980, pp. 424 - 425.
- (42) Canada, Adams Report, p. 100.
- (43) Wayne Cheveldayoff, "Job Training," Toronto Globe and Mail, December 27, 1978.
- (44) This phrase is borrowed from J.S. Dupré, David M. Cameron, Graeme H. McKechnie, and Theodore B. Rotenberg, Federalism and Policy Development: The Case of Adult Occupational Training in Ontario, (Toronto: University of Toronto Press, 1973), p. 55.
- (45) *Canadian Teachers' Federation, Canadian Teachers' Federation: Its Objectives, Its Policy, 1980-81*, (1980), p. 12.
- (46) Ibid., p. 12.
- (47) Canadian School Trustees' Association, "National Employment Strategy", mimeo., no date, p. 1.
- (48) Organisation for Economic Co-Operation and Development, Education and Working Life, (Paris: Organisation for Economic Co-Operation and Development, 1977), p. 24.
- (49) *British Columbia, Seminar on Skilled Labour Shortages*, p. 123.

- (50) Because of differences in the educational system, Quebec is not included in these Calculations. Figures for 1971-72 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1971-72, Table A.1, "Enrolment in Public Schools, by Grade and Sex, 1971-72"; Figures for 1972-73 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1972-73, Table 2.2, "Enrolment in Public Schools, by Grade and Sex, 1972-73"; Figures for 1973-74 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1973-74, Table 2.2, "Enrolment in Public Schools, by Grade and Sex, 1973-74"; Figures for 1974-75 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1974-75, Table 3.2, "Enrolment in Public Schools, by Grade and Sex, 1974-75"; Figures for 1975-76 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1975-76, Table 6, "Enrolment in Public Schools, by Grade and Sex, 1975-76"; Figures for 1976-77 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1976-77, Table 5, "Enrolment in Public Schools, by Grade and Sex, 1976-77"; Figures for 1977-78 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1977-78, Table 5, "Enrolment in Public Schools, by Grade and Sex, 1977-78"; Figures for 1978-79 are taken from Statistics Canada, Elementary-Secondary School Enrolment, 1978-79, Table 5, "Enrolment in Public Schools, by Grade and Sex, 1978-79".
- (51) Organisation for Economic Co-Operation and Development, Reviews of National Policies for Education, Canada, (Paris: OECD, 1976), p. 44.
- (52) OECD, Education and Working Life, pp. 20-21.
- (53) Statistics Canada, Out of School - Into the Labour Force, (Ottawa: August 1978), pp. 54 - 55.
- (54) W. Clark and Z. Zsigmond, Job Market Reality for Postsecondary Graduates, (Ottawa: Supply and Services Canada, 1981), pp. 128 - 129.
- (55) British Columbia, Seminar on Skilled Labour Shortages, p. 7. Our emphasis.
- (56) OECD, Reviews of National Policies for Education, Canada, p. 43.
- (57) Ibid., p. 43. See also pp. 32 - 33.
- (58) Wendy Warburton, "Back to Basics Main Objective of School Study," Ottawa Citizen, May 5, 1981, p. 1.

- (59) *British Columbia, Report of the Commission, p. 5.*
- (60) *British Columbia, Seminar on Skilled Labour Shortages, p. 13.*
- (61) *Canada, Adams Report, p. 87. Our emphasis.*
- (62) *Adams, "Why Business Should Support a Training Levy Scheme".*
- (63) *Robertson, Nickerson Group Associates Ltd., Case Studies on Aspects of Training Upper Blue Collar Industrial Workers, pp. 3a, 67, 72.*
- (64) *Ibid., p. 3a.*

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NOTES FOR CHAPTER III

- (1) *William Dodge, Skilled Labour Supply Imbalances: The Canadian Experience, (Canada: British-North American Committee, 1977), p. 2.*
- (2) *Ibid., p. 4.*
- (3) *The harmful effect of skilled labour shortages upon productivity is noted in Economic Council of Canada, A Climate of Uncertainty: Seventeenth Annual Review, (Ottawa: Minister of Supply and Services, 1980), pp. 93 - 96; Gordon Betcherman, in a separate study for the Economic Council entitled, Skills and Shortages: A Summary Guide to the Findings of the Human Resources Survey, reports that three common responses of the surveyed firms to hiring difficulties were to pay overtime, to offer improved wages and benefits, and to curtail production. All of these responses may damage a firm's productivity.*
- (4) *House of Commons Special Committee on Employment Opportunities for the '80s.*
- (5) *See for example "Notes for an Address by the Honourable Lloyd Axworthy to the Conference Board in Canada, November 25, 1980."*

- (6) Ken Romain, "Lack of Skilled in Technology is Lamented," Toronto Globe and Mail, December 2, 1980.
- (7) Martha Robinson, "Aerospace Firms 'Lack Workers'," Vancouver Sun, April 30, 1981, p. H 2.
- (8) Canada, Report of the Aerospace Manufacturing Sector Consultative Task Force, (Ottawa: Industry, Trade, and Commerce, 1978), p. 4.
- (9) Ibid., p. 6.
- (10) Lawrence Welsh, "Mines Face Shortage if Training Levels Unchanged," Toronto Globe and Mail, November 28, 1980. Welsh went on to report that: "Taylor Redden, Chairman of the Association's Human Resources Committee, noted that over the next three years the industry needs 50 per cent more tradesmen than are currently being trained just to satisfy projected needs at current mining operations." Our emphasis.
- (11) "Notes for an Address by Pieter Van Vliet, P. Eng., President, Canadian Council of Professional Engineers to the 1981 Annual Meeting and Conference of the Engineers-in-Education Division of the Association of Professional Engineers of Ontario, May 2, 1981."
- (12) Gordon Betcherman, Skills and Shortages: A Summary Guide to the Findings of the Human Resources Survey, (Ottawa: Supply and Services Canada, 1980), p. 7.
- (13) The Employers' Council of British Columbia, "Submission to Task Force on Employment Opportunities for the '80s", October, 1980, p. 2. Acute skills shortages in the Lower Mainland of B.C. were also identified by the Vancouver Board of Trade in A Time For Action: A Survey of Critical Trade Skills in the Lower Mainland, Spring 1980.
- (14) The figures in Table 5 are reproduced from Table 1 of the Employers' Council of British Columbia's Brief to the Task Force on Employment Opportunities for the '80s. The figures are originally from the Occupational Training Council of B.C., Critical Skills, March 17, 1980.
- (15) Employment and Immigration Canada, Annual Report to Parliament on Immigration Levels, 1980, (Ottawa: Minister of Supply and Services, 1980), p. 10.

- (16) *Employment and Immigration Canada, Annual Report to Parliament on Immigration Levels, 1981*, (Ottawa: Minister of Supply and Services, 1981), p. 14.
- (17) All figures are taken from *Employment and Immigration Canada, Annual Report to Parliament on Immigration Levels, 1980*, (Ottawa: Minister of Supply and Services, 1980), p. 14.
- (18) Betcherman, *Skills and Shortages*, p. 12.
- (19) *Ibid.*, p. 18. The Adams Commission also blamed insufficient apprenticeship training for skilled trades shortages. See *Adams Report*, p. 89. Employer reluctance to train and employ apprentices was also noted by B.C.'s Commission on Vocational, Technical, and Trades Training. See *Report of the Commission*, pp. 25 - 27.
- (20) Adams, "Why Business Should Support a Training Levy Scheme", p. 24.
- (21) Canadian School Trustees' Association, "Bridging the Gap Between School and Work," p. 1. The poor vocational preparation record of the secondary school system is also mentioned by Roy J. Adams in "Towards a More Competent Labour Force", p. 429.
- (22) F.L.C. Reed, "The Manpower Dimension of Forest Renewal," Address to the Canadian Forestry Association 81st Annual Luncheon, March 20, 1981, (mimeo.), p. 10.
- (23) *Ibid.*, p. 14.

NOTES FOR CHAPTER IV

- (1) For the difference between the Canadian and West German youth unemployment rates, see Table 3, Chapter II, p. 6.
- (2) Commission of the European Communities, *Vocational Training in the Federal Republic of Germany*, (Brussels: Commission of the European Communities, 1978), p. 3.

- (3) Information of the constitutional division of education authority was taken from Vocational Training in the Federal Republic of Germany, pp. 3, 14; and Federal Republic of Germany, Facts About Germany, (Lexikon: Institut Bertelsmann, 1979).
- (4) In most Lander primary schooling ends with the completion of Grade Four. However, in Berlin, Bremen, and Hamburg, primary schooling lasts through to the completion of Grade Six. In these Lander, entrance to the secondary school system is delayed accordingly.
- (5) See Note 4.
- (6) Commission of the European Communities, Vocational Training in the Federal Republic of Germany, p. 5.
- (7) Ibid., pp. 19, 22.
- (8) This Table is derived from Table 2 in Organisation for Economic Co-operation and Development, Policies for Apprenticeship, (Paris: OECD, 1979), p. 92.
- (9) Organisation for Economic Co-operation and Development, Manpower Policy in Germany, (Paris: OECD, 1974), p. 138. Our emphasis.
- (10) Commission of the European Communities, Vocational Training in the Federal Republic of Germany, p. 17.
- (11) OECD, Policies for Apprenticeship, p. 71.
- (12) OECD, Manpower Policy in Germany, p. 64.
- (13) Ibid., pp. 64, 65.
- (14) The Committee wrote that: "It has been shown that more general education leads to a reduction in the proportion of failures in final apprenticeship examinations. Only a small fraction of unskilled workers with a low standard of general education have made headway in their careers" Ibid., p. 63.

- (15) *Commission of the European Communities, Vocational Training in the Federal Republic of Germany, p. 7; Federal Republic of Germany, Facts About Germany, p. 307.*
- (16) *OECD, Manpower Policy in Germany, p. 65.*
- (17) *OECD, Policies for Apprenticeship, p. 74. See also Commission of the European Communities, Vocational Training in the Federal Republic of Germany, pp. 5, 7.*
- (18) *The Commission of the European Communities found that, in 1975, "Of the 1.6 million vocational school pupils, 330,829 were undergoing block-release training." See Commission of the European Communities, Vocational Training in the Federal Republic of Germany, p. 7.*
- (19) *OECD, Manpower Policy in Germany, p. 138.*
- (20) *Federal Minister of Education and Science, Vocational Training Act, Act on the Promotion of Training Places, (Bonn: 1979), p. 13.*
- (21) *OECD, Policies for Apprenticeship, p. 42.*
- (22) *OECD, Manpower Policy in Germany, p. 139; Commission of the European Communities, Vocational Training in the Federal Republic of Germany, p. 7.*
- (23) *Klaus Weiermair, "Economic Determinants of Training and the Debate over Training Policy in West Germany," in Barrie O. Pettman (ed.), Government Involvement in Training, (Bradford, England: MCB Publications, 1978), p. 182.*
- (24) *Federal Republic of Germany, Vocational Training Act, pp. 30, 31. The Adams Commission pointed out that the passrate for the apprenticeship examinations is between 80 and 90 per cent. See Canada, Adams Report, p. 52.*
- (25) *About 35 per cent of West Germany's firms offer apprenticeship positions. Canada, Adams Report, p. 52. This compares with the 16 per cent figure uncovered by the Economic Council of Canada's Human Resources Survey.*

- (26) See Sections 1 - 13 of Act on the Promotion of Training Places.
- (27) Commission of the European Communities, Vocational Training in the Federal Republic of Germany, p. 28.
- (28) Federal Republic of Germany, Facts About Germany, pp. 306, 307.
- (29) OECD, Policies for Apprenticeship, p. 79.
- (30) Canada, Adams Report, p. 53. Our emphasis. Later in the report the Commissioners observed: "The Germans are convinced that the success of their economy is largely attributable to the apprenticeship system which makes major use of leave." Ibid., p. 74.
- (31) See Table 3 in Chapter I. p. 6.

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NOTES FOR CHAPTER V

- (1) Organisation for Economic Co-operation and Development, Future Educational Policies in the Changing Social and Economic Context, (Paris: OECD, 1979), p. 21.
- (2) In a general study of education and working life, the OECD concluded that: "For many young people who go into the labour force at the end of compulsory education, the central problem is that, because of their youth and lack of specific training and experience, they are among the least well-equipped to compete for jobs, especially the more attractive ones." OECD, Education and Working Life, (Paris: OECD, 1977), pp. 27, 28. This general conclusion is very applicable to the Canadian scene.
- (3) The OECD found that: "In most OECD Member countries, significant changes in the way young people enter working life have taken place in recent years. The most serious and visible manifestation of this changed situation is the rise in youth unemployment. Young people have been experiencing increasing difficulty in finding stable jobs and are at risk of becoming a marginal sector of the population." OECD, Future Educational Policies, p. 81.
- (4) See Table 4, Chapter I, p. 21.

- (5) *The OECD endorsed this position in OECD, Education and Working Life, p. 33.*
- (6) *OECD, Future Educational Policies, p. 24. Emphasis in original.*
- (7) *OECD, Education and Working Life, p. 34.*
- (8) *See Canada, Adams Report, Chapter III.*
- (9) *Canada, Report of the Standing Senate Committee on National Finance on Canada Manpower, August 1976, (Ottawa: 1976), p. 75.*
- (10) *OECD, Reviews of National Policies for Education, Canada, pp. 35, 36.*
- (11) *British Columbia, Seminar on Skilled Labour Shortages, p. 8.*
- (12) *Ibid., p. 112.*
- (13) *OECD, Education and Working Life, pp. 54, 55.*
- (14) *Canada, Adams Report, p. 97.*
- (15) *Canada, Report of the Standing Senate Committee on National Finance, p. 90.*
- (16) *Ibid., p. 92.*
- (17) *Ibid., p. 93.*
- (18) *These figures were cited in Adams, "Towards a More Competent Labour Force: A Training Levy Scheme," p. 423.*
- (19) *Canada, Report of the Standing Senate Committee on National Finance, p. 94.*
- (20) *Betcherman, Skills and Shortages, p. 12.*

- (21) *Canada, Adams Report, p. 227.*
- (22) *OECD, Education and Working Life, p. 55.*
- (23) *OECD, Policies for Apprenticeship, p. 7.*
- (24) *Ibid., p. 70.*
- (25) *Department of Employment and Immigration, Summary of Consultant Report on Case Studies of Higher-Level Blue Collar Workers in Manufacturing, p. 7.*
- (26) *See Canada, Adams Report, pp. 161 - 163.*
- (27) *Ibid., p. 163.*
- (28) *Ibid., p. 221. The Commission's support for apprenticeship also surfaced on p. 203.*
- (29) *Department of Employment and Immigration, Summary of Consultant Report, p. 10.*
- (30) *British Columbia, Seminar on Skilled Labour Shortages, p. 13.*
- (31) *Canada, Report by the Sector Task Force on the Canadian Aerospace Industry, p. 15.*
- (32) *Ibid., p. 15.*
- (33) *OECD, Reviews of National Policies for Education, Canada, p. 112.*
- (34) *OECD, Education and Working Life, p. 36.*
- (35) *This provision would go towards meeting the ends outlined in the Adams Commission recommendation about apprenticeship.*

- (36) According to the terms of the Established Programmes Financing Act, Ottawa will transfer \$1.6484 billion in cash and another \$1.4264 billion in tax points to the provinces in support of post-secondary education.
- (37) All figures are taken from "Federal Government Expenditures on Education and University Research," Education Support Programs Branch, Department of Secretary of State, April 1981, (mimeo.).
- (38) See Ibid., and Honourable Francis Fox in Canada, House of Commons Debates, Vol. 124, no. 131, First Session - 32nd Parliament, p. 6688.
- (39) See for example Canada, Adams Report, p. 225. Employers' Council of British Columbia, "Submission to Task Force on Employment Opportunities for the '80s," October 1980, p. 1.
- (40) Canada, Adams Report, p. 225.
- (41) The Adams Commission also recommended the creation of a national education and training agency. See Canada, Adams Report, pp. 235, 236.
- (42) See "Ottawa Advertises Itself," Montreal Gazette, March 6, 1981, p. 6. "Federal Ads Reach \$60 Million in Year," Toronto Globe and Mail, March 11, 1981, p. B4.