

The Council estimated that the Canada-U.S. differences in the average educational attainments of their respective labour forces account for approximately one third of the difference in productivity between the two countries. The Council's analysis also suggested a strong relationship between individual income levels and educational attainments. For example, in Canada the average income of those who have completed four to five years high school is more than one and a half times the average of those who have only elementary school education; and those who have university degrees have an average income which is more than two and a half times the average of those with only elementary school education, and more than twice the average of those who have only one to three years of high school.

A rough estimate of the 'profitability' of education can be made by calculating the extra income which on average is associated with a higher level of education, against the extra outlays and costs involved in obtaining such an education. On the basis of such calculations, it was estimated that returns on the 'human investment' in high school and university education in Canada are in the range of 15 p.c. to 20 p.c. a year. This is a somewhat higher rate of return than has been calculated for the United States.

The benefits from increased education, according to certain calculations and assumptions, are estimated to have accounted for a share in the general order of one quarter of the increase both in the average standard of living and in the productivity of Canadians from 1911 to 1961. Although this is a large contribution, it is apparently substantially lower than that indicated in comparable estimates for the United States.

Canada now faces a general shortage of manpower with higher educational attainments. The shortages extend from the high school level on up, and are most severe at the professional and university level. These deficiencies in the supply of skills constitute one of the major obstacles to be overcome in achieving a satisfactory rate of improvement in productivity and of economic growth in Canada.

The future benefits from increased efforts in education are very large, and the economic returns to the nation from increased investment in education are likely to exceed by a considerable margin those from most other types of expenditure. This economic gain is complementary to the contribution of education to the human, social and cultural development of individuals.

In the light of these findings, the Council recommended that the advancement of education at all levels be given a very high place in Canadian public policy, and that investment in education be accorded the highest rank in the scale of priorities. In particular, the Council urged that immediate attention be given to:—

- (1) The rapid and substantial expansion of post-secondary education in all parts of Canada. The aim should be to provide a ready opportunity for higher education to every qualified Canadian student so that financial obstacles will be eliminated as a barrier to higher education. A substantial increase in funds for research is a necessary feature of expanded and improved education at the higher levels.
- (2) The closing of the remaining gaps in school facilities and professional resources at the secondary school level so that such education is a real and practical possibility for all Canadian children.
- (3) The development and implementation of greatly expanded programs to upgrade and bring up to date the education and skill qualifications of the existing labour force, including professional workers and management. Continuing education and retraining must play an ever-increasing role in the future.
- (4) Social and other measures to reduce drop-outs in high school and thus achieve a much higher rate of high school completions.
- (5) Vigorous efforts through research, the use of new techniques, and the upgrading of the qualifications of teachers to improve the quality and methods of education.
- (6) Closer co-operation between business, labour and the educational system, along with improved counselling of students, regarding future manpower needs and the most effective ways of meeting these needs.

Scale and Specialization.—Whereas the over-all productivity in Canada has been estimated to be one fifth lower than in the United States, the Council in its *Fourth Annual Review* estimated that, in the manufacturing area alone, the productivity gap between the two countries appeared to be in the order of one third or more. This difference reflects in considerable part the way in which production is organized—diversification, mechanization, technology, efficient use of resources, management, morale, attitudes, etc. The measure should not be taken simply as a reflection on the energy, basic ability or enthusiasm of Canadians.