

Statistics Canada

9.2.3

Statistics Canada is the major performer of activities in the social sciences with expenditures estimated at \$148.0 million in 1977-78.

Statistics Canada provides statistical information needed to understand the Canadian economy and society. This is used to develop and monitor economic and social policies and programs of virtually all levels of government, as well as to support research work and decision-making. For example, the unemployment statistics and the Consumer Price Index are key indicators of the economic health of the nation. The agency's program consists almost totally of related scientific activities in the social sciences and represents nearly a third of total federal spending on social sciences RSA.

One of Statistics Canada's key jobs is conducting the census at five- and 10-year intervals on population and housing; the latest 10-year census was in 1971 and the five-year census in 1976. The bureau also undertakes a comprehensive census of agriculture at the same time and regularly surveys social and economic changes under more than 20 broad headings.

The growth of Statistics Canada, both in personnel and in the complexity of statistical activity, has paralleled Canada's development as a modern industrial state. The agency's staff includes the largest single body of social scientists in one organization in Canada. Several hundred additional persons are employed part-time on special surveys and censuses.

Statistical collection covers every area of Canada. Most Statistics Canada information is available to the public through publications. For users requiring information in a more sophisticated form there is an increasing output on microfilm, computer tapes and special tabulations.

Department of Agriculture

9.2.4

The agriculture department's research program has the largest budget devoted entirely to research — expected expenditures of \$107.0 million in 1977-78. Research, conducted at the Central Experimental Farm in Ottawa and at regional laboratories across Canada, involves all elements of the food chain, soils, crops, animals, plant and animal products and diseases, in addition to problems of food processing and storage. Other programs cover production and marketing.

Rising labour and energy costs have made agriculture increasingly dependent on technology. This, combined with Canada's size, wide range of climatic and soil conditions and correspondingly wide range of agricultural crops and animals, makes it essential to co-ordinate research.

The research branch performs most of the department's research studies and supports a number of programs. One is aimed at economical conversion of cellulose and carbohydrate waste materials to feed-stock for ruminants and other animal species; others are concerned with extraction and processing of proteins derived from plants, models for predicting crop production on the basis of soil and weather information, and a control system for wild oats.

The branch is pursuing food-related research programs intended to improve the genetic characteristics of crops and livestock. One byproduct of such studies is that branch scientists have developed techniques for sexing and for the successful transfer of cattle embryos. These techniques will increase the international exchange of superior gene pools. Research into the causes of early pregnancy failure, mechanisms of transmission of diseases which reduce reproduction, and artificial control of the female reproductive cycle may lead to improvements in the productivity of Canadian breeding stock.

Emphasis of energy research is on energy efficiency of agricultural production systems and conversion of animal wastes to usable energy forms. Environmental programs continue to emphasize research into use of biotic agents for controlling agricultural pests and studies of the nature and effect of toxicants arising from infestations, additives, chemical control agents or inadvertent contamination.

The federal government, co-operating with provincial governments, supports an active soil survey program. Surveys have shown that land available for agriculture and