

Spanish and Russian are taught and it is expected that there will soon be extra curricular courses in Hebrew, Arabic, Danish, Sinhalese and Urdu.

#### BUS CLASSROOM

New York also has a similar laboratory installed in a bus, built for Puerto Rico Forum, Inc., to help increase employment opportunities for the city's numerous Puerto Ricans. The "electronic classroom" travels in a bus to factories and hospitals, to aid workers in overcoming the language barrier. Two other stationary laboratories are being built in California - one in an adult school and one in a high school.

#### NRC HOUSING STUDY

A study by the National Research Council of Canada shows that home construction costs, especially in large housing-projects, could be reduced significantly if houses were built in accordance with acceptable standards rather than traditional practice. It also shows that site labour costs accounted for only 14 per cent of the selling price of one project home built during the study.

An investigation of the labour and materials required in the construction of two wood-frame houses was conducted over a two-year period by the Housing Section of NRC's Division of Building Research.

A.T. Hansen, NRC Research Officer in charge of the study, says the on-site construction cost of the first three-bedroom wood-frame bungalow was \$10,586, made up of 24 per cent labour, 74 per cent materials and 2 per cent equipment rental. The selling price of this home was \$18,000, which meant that the on-site cost represented about 59 per cent of the selling price.

#### COSTS AND SELLING PRICE

The remaining 41 per cent was made up of serviced-land costs, profit, overhead and various financial charges. In relation to the selling price, the component costs were 14 per cent for labour, 44 per cent for materials and 1 per cent for equipment rental.

"At one time it was common to assume that site labour accounted for 40 to 50 per cent of the total cost of construction," Mr. Hansen says. "The fact that the total on-site building cost of this house represented less than 60 per cent of the final selling price also leads one to speculate whether the items responsible for the remainder of the cost might not be a useful area for some future study."

The second house was almost identical to the first, but incorporated changes in construction advanced by the Division of Building Research that offered a potential saving of nearly \$400. The

changes did not significantly affect the quality as a whole, nor the appearance of the house; all of them conformed to the requirements of the Residential Standards of the National Building Code.

"This study showed that the potential savings from any individual change were relatively small, but when these were totalled they amounted to about 4 per cent of the on-site cost," Mr. Hansen says. "To a builder constructing 125 houses a year, this would mean a potential saving of about \$50,000."

#### POPULATION ESTIMATES

As of October 1, Canada's population was estimated at 20,857,000, an increase of 309,000 (1.5 per cent) since October 1, 1967. An increase of 390,000 (1.9 per cent) occurred in the 12 months from October 1, 1966 to October 1, 1967. About half the decrease in population growth over the period from October 1, 1967 to October 1, 1968, compared to the previous 12 months, was attributed to lower immigration, about one-fifth to fewer births and the remainder to greater numbers of deaths and emigrants.

Provincial increases in the 12-month period ending October 1, 1968, were led by Ontario with 138,000, or 1.9 per cent. British Columbia gained 55,000, or 2.8 per cent, Quebec 51,000, or 0.9 per cent, Alberta 36,000, or 2.4 per cent, Newfoundland 9,000, or 1.8 per cent, Manitoba 8,000, or 0.8 per cent, Nova Scotia 4,000 or 0.5 per cent. New Brunswick and Saskatchewan had increases of 3,000 each and Prince Edward Island gained 1,000.

The starting-point of these estimates is the population count of the census of June 1, 1966. To the provincial counts are added births and immigrants; deaths and estimated emigrants are subtracted and an allowance made for interprovincial migration. These estimates are subject to revision after the 1971 Census of Canada.

On the basis of the elements of population growth prevailing in this quarterly period, the projected population at 2.30 p.m., November 15, as registered on the Canada Population Clock was 20,897,851.

#### GUIDING PRINCIPLES OF CANADA'S DEFENCE POLICY

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importance of a collective approach to defence problems. Canada's history of the last half-century amply attests to our enthusiastic support of such an approach and has shown our willingness to make an effective contribution every time it was required. Collective security continues to be the guiding principle of Canadian defence policy."

The Canadian Weekly Bulletin extends to all its readers  
best wishes for the holiday season  
and the new year