Although these measures relate output to a single input only, namely labour time, they do not measure the exclusive contribution of labour to output. Changes in indexes of output per unit of labour input reflect the combined influence of a number of separate but interrelated factors such as the amount and quality of capital equipment, the extent of utilization of available capacity, managerial efficiency and the impact of technological progress, as well as the skill and effort of the work force.

Sources of Data.—The output components of the various indexes of output per unit of labour input referred to here are the historical indexes of "real domestic product (GDP) at factor cost by industry of origin", described in Section 2, p. 1069. These indexes, which were developed within the conceptual framework of the national accounts and which measure in constant dollar terms the unduplicated contribution of each component industry to total output, are considered basically suitable for productivity measurement when matched with the corresponding input measures.

The major sources for the employment and man-hour indexes were the monthly labour force and employment surveys, and these were supplemented by data from such sources as the annual censuses of manufacturing and mining and the decennial census of population. Since the data from these diverse sources varied considerably in their coverage, concepts and methods of compilation, care had to be exercised in their selection, adaptation and combination into aggregate measures of labour input which would be conceptually and statistically consistent, both internally and in relation to the output data. Labour force survey data were used for the paid worker estimates of agriculture and of fishing and trapping, while those for manufacturing and mining were based on adjusted annual census data. Estimates for most of the remaining industry divisions were derived from adjusted employment survey data. Estimates of other than paid workers (own-account workers, employers and unpaid family workers) were derived mainly from the labour force survey. The estimates of average hours worked, which were needed for the indexes of output per man-hour, were also based on labour force survey data, except in the case of manufacturing, where estimates of man-hours paid from the census of manufactures were adjusted to the man-hours worked concept.

Growth Rates.—Output per person employed in the commercial non-agricultural industries grew at an average annual rate of 2.5 p.c. between 1946 and 1966. Because of the decline in average hours worked per person, this was a lower rate of growth than that of output per man-hour which, during the same period, increased by 3.2 p.c. per annum. Corresponding figures for manufacturing were 3.4 p.c. and 3.8 p.c. and those for the residual non-manufacturing industries of the commercial non-agricultural sector were 2.1 p.c. and 2.9 p.c., respectively.

In agriculture, the average annual rates of growth of output per person employed and per man-hour between 1946 and 1966 were 5.6 p.c. and 5.8 p.c., respectively. However, in view of the difficulties of measuring the number and especially the man-hours of persons employed in agriculture, data presented for this industry division should be regarded as approximate. In the commercial industries as a whole, output per person employed increased between 1946 and 1966 at an average annual rate of 3.3 p.c., and output per man-hour increased by 4.1 p.c. per annum. Corresponding figures for the total goods-producing industries were 4.8 p.c. and 5.4. p.c., respectively, per annum; for the non-agricultural goods-producing industries, 3.8 p.c. and 4.2 p.c.; and for the commercial service-producing industries, 1.1 p.c. and 1.8 p.c.

Inter-industry Shift Effects.—In addition to measuring the changes in productivity within the component industries, the aggregate productivity indexes measure the effect of shifts in employment and production between industries having different levels of produc-