

The ordinary price index reflects the behavior of all costs and not just those originating within the industry in question. Conceptually the price (or total unit cost) which we have calculated is equal to the market price of the product minus the unit cost of raw materials and supplies purchased from other industries. In the discussion in the remainder of this paper, unless otherwise indicated, the term price will be used in this special sense of total unit cost of the product originating *within* a given industry.

The last type of information developed in this study is an index of output per man-hour in an industry. This productivity index is obtained by dividing the constant price output figure for each year by the total man-hours used to produce that output. The resulting series may then be shifted to a particular year as 100 in order to obtain the usual index with a base of 100.

DATA AND STATISTICAL METHODS USED

The techniques described above require that for each year the gross product originating in each industry be calculated both in current prices and base-year prices. The current price GPO estimates were made using the income and cost data published by the Department of Commerce adjusted in various ways. The details of these adjustments are given in appendixes A and B. The most important necessary adjustment is to modify the capital consumption allowances, net business income, and indirect taxes for the fact that they are estimated on the basis of company reports rather than establishment reports. The wage, salary and output estimates are based on establishment data and therefore need no adjustment.

The desirability of making an adjustment for the influence of the use of company reports is obvious. The reports of companies classified in a given industry may be seriously influenced by establishments which that company owns in other industries; further, a substantial share of the products of some industries are produced in establishments of companies classified in other industries.

Adjustments were possible in all industries except petroleum and coal products. In petroleum and coal products it proved to be impossible to remove the influence of the oil producing properties of the integrated refining companies, and this industry was therefore excluded from the analyses which required net business income, capital consumption or indirect taxes. Integrated companies with establishments outside manufacturing exist in other manufacturing industries, of course, but the problem is far more extreme in the petroleum products industries than in any other. Where the problem existed in other industries, either it was possible to make adjustments or the error was small enough to ignore.

No really satisfactory method is available for making the necessary adjustments to convert data based on company reports to an establishment basis. In this study conversion of company data into establishment data was accomplished principally by the use of cross-classification tables from the 1954 census. In these tables employment is cross-classified by industry according to both establishment and company industry classifications. The use of these data is explained in appendix B.