principal product, measured in terms of annual sales volume. And finally, concentration ratios were computed from data based on the value of product shipments directly, irrespective of the establishment

or corporation involved.

As a result of these differences in concept and scope, the several series are not completely comparable. To a substantial degree, however, the varying bases of classification are probably corrected by the fact that the 2-digit industry classifications used here are quite broad; consequently, they would normally embrace both the primary and the great majority of secondary products produced by any given establishment. In the case of corporatewide classification, however, there is a greater possibility that the profits figures will be overstated or understated. Classification on a product basis directly,

of course, raises no serious issues.

The meaning and limitations on the use of concentration ratios also deserve some preliminary discussion. In general, concentration ratios provide a measure of the proportion of the total value of shipments or of total employment in a particular manufacturing industry which is accounted for by the largest companies in that industry. As such, they may provide a rough measure of the extent of competitive pressures existing in the product market, on the presumption that the larger the proportion of the product value which is sold by the largest firms, the greater is the "degree of monopoly" involved. There are, however, important limitations on the use of concentration ratios for this purpose. On the one hand, such ratios do not reflect the pressure of competition from substitute products, such as plastics for metals; nor do they reflect the extent to which imports may compete in the domestic market. As a result, concentration ratios may overstate the degree of monopoly in a particular situation. On the other hand, these ratios do not reflect the extent to which the relevant product market may be regional or local in character, as in the case of goods having high transportation costs. In these instances, ratios based on product value shipments for the entire country tend to understate the effective degree of concentration.3 Nevertheless, concentration ratios can provide at least a general frame of reference for evaluating whether a particular industrial classification is "more" or "less" competitive.

## II. WAGE MOVEMENTS IN THE POSTWAR PERIOD

A number of statistical analyses were carried out relating the percentage changes in straight time hourly earnings in the 19 manufacturing industries with the movements of several other variables, including the percentage changes in production worker employment, output, productivity per production worker man-hour, the level of profits (as a rate of return on equity), and concentration ratios.

Some of the results of a complete year-to-year cross section analysis are summarized in table 1; in addition, a complete matrix of all possible simple correlation coefficients is shown in appendix B.<sup>4</sup> The simple coefficients listed in table 1 suggest several important points. Of considerable interest is the fact that no significant relationship was

<sup>&</sup>lt;sup>3</sup> An excellent presentation of these and other limitations on the use of concentration ratios can be found in "Concentration in American Industry," Subcommittee on Antitrust and Monopoly, at pp. 3-6.

<sup>4</sup> All the regressions and correlation coefficients presented in the following discussion are single equation least squares estimates. All equations fitted were linear.