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BY HAROLD BARGER

Columbia University



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The report was read by a staff committee of the National Bureau consisting of William J. Carson, Solomon Fabricant, Thor Hultgren, Frederick C. Mills, Geoffrey H. Moore, George J. Stigler, and Leo Wolman. Several members of this committee made helpful suggestions. Useful comments were also made by Wallace J. Campbell, Frank W. Fetter, Mr. Knauth, and the late C. Reinold Noyes, directors of the National Bureau; and by John W. Kendrick of the National Bureau staff. H. Irving Forman drew the charts. Finally I have to thank Mary C. Wing for editorial assistance, and Robert Lipsey for reading proof and making the index.

HAROLD BARGER

OTHER NATIONAL BUREAU REPORTS IN THIS SERIES DEALING WITH PRODUCTION, EMPLOYMENT, AND PRODUCTIVITY IN AMERICAN INDUSTRY

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The study upon which this volume and the other	er reports as listed

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FOREWORD

THE topic of this study is the changing place of distribution in the nation's economy. Has its output, i.e. the services it renders to the consumer, kept pace with the growth of the economy? What of the draft it makes upon the nation's labor force? Has distribution cost increased or diminished with the years? How have the relative importance of wholesale and retail trade, and the kind of merchant en-

gaged in each, altered with time?

Until recently the field of distribution was seriously neglected by statisticians. The first careful surveys of distribution cost were made no earlier than World War I. Nor did the Bureau of the Census attempt to cover this sector of the economy prior to 1929, while the Bureau of Labor Statistics first took an interest in retail and wholesale trade at an even later date. On many aspects of distribution, therefore, we possess comprehensive and readily accessible information only for the two or three most recent decades. Although much scattered data for earlier years can be found, the contrast between the wealth of information available today and the sparsity of material prior to World War I is so marked that we were seriously tempted to confine the inquiry to recent developments in the field. We soon found, however, that what we were able to learn about distribution in recent times was so novel and surprising that we could not restrain our curiosity concerning an earlier era. Which of the trends disclosed for recent years by our relatively reliable modern data, we asked ourselves, also were present during that earlier period?

Consider the three leading findings of the present study: (1) Between 1930 and 1950 the fraction of the labor force engaged in commodity distribution (i.e. retail and wholesale trade) rose from one worker in eight to one worker in six; between the same dates, persons engaged in commodity production (i.e. agriculture, mining, and manufacturing) underwent a relative decline from one-half of the labor force to two workers in five. (2) Despite uncertainties in measuring output in trade, we may say that output per man-hour rose by about one-fifth between 1929 and 1949; in agriculture, mining, and manufacturing combined, it rose by two-thirds. (3) Distribution cost, measured as a fraction of the retail value of commodities, remained remarkably stable. Since World War I, for all finished goods and construction materials sold at retail, retailers and wholesalers have together obtained with remarkable regularity around 37 cents of each dollar of retail value. Of course there were some variations between branches of trade, and some movement from one year to another, but no trend is discernible during the past three decades in the merchant's share of the retail sales dollar.

To summarize: Since the 1920's the fraction of the labor force engaged in distributing commodities has increased sharply, while the fraction engaged in producing commodities has declined, though not so sharply. Output per man-hour in distributing commodities increased, although much less rapidly than in their production. Finally, the distributor's share of the retail sales dollar showed neither an upward nor a downward trend.

These three findings rest upon census data and similarly solid foundations, and their reliability does not appear to be in question. What can we discover about similar trends in the period before World War I?

We have ransacked the record. We have pieced together every available scrap of information. And this is our conclusion: The first and second findings are just as applicable to the period between the Civil War and World War I as they are to the period since World War I. The third finding, by contrast, requires modification.

That is to say, the fraction of the labor force engaged in distributing commodities has shown an upward trend, and the fraction engaged in producing commodities a downward trend, ever since the Civil War. Again, output per man-hour, in both distribution and production, has tended to rise throughout the eight decades; but it has tended to rise much more rapidly in agriculture, mining, and manufacturing than in retail and wholesale trade. Finally, the distributor's share of the retail sales dollar, decidedly stable since World War I, apparently experienced a definite but very slow expansion between the Civil War and World War I.

We believe that, stated thus broadly, our findings for the period prior to World War I cannot well be assailed. However, the individual figures upon which the above broad conclusions are based—figures to be found in the tables of the report—clearly are much less precise and reliable than those for the period since World War I. Let us see why.

The first finding—on the distribution of the labor force—rests upon the decennial population census, in using which, prior to 1930, the industrial must be approximated from the occupational tabulation. That is to say, the aggregate number of persons engaged in retail and wholesale trade has to be estimated from the numbers in certain "characteristic occupations," e.g. "dealers" and "clerks in

stores." We have checked the figures, experimented with extreme assumptions about possible errors, and find that the broad conclusion is still warranted.

The second finding—the contrast in rates of change in man-hour output—rests upon the first, together with estimates for (1) trends in hours worked per year by persons engaged in commodity distribution and in commodity production, respectively, and (2) trends in the output of commodity distribution and of commodity production. Estimates for hours worked in commodity production have long been available, but for hours worked in retail and wholesale trade we found it necessary to digest numerous reports from statistical bureaus of individual states and other sources; hence the final figures are only approximate. Output estimates for the three commodity-producing industries rest upon decennial census data. Estimates of the net output of distribution are derived in turn from commodity output, adjusted to allow for changes in the volume of output that enters the distribution system and also for the volume of distributive services rendered per unit; but prior to 1929 the derivation rests upon a mass of partial and scattered data described in the report. Here too we experimented with extreme assumptions regarding the possibility of error; but, as will be seen from the quoted results of alternative calculations, our broad conclusions are not disturbed.

The third finding—a slow rise in the distributor's share of the retail sales dollar during the period prior to World War I—is largely independent of the foregoing sources and rests upon three distinctive types of data: (1) censuses of distribution taken in Massachusetts and Indiana prior to 1900; (2) surveys and opinions published in trade publications; and (3) the historical records of certain individual merchandising firms. The logical relationship between the first two findings and the third is investigated in the body of the report, and the latter found to be broadly consistent with the former.

In conclusion, it should be emphasized that the results offered in this volume for the period before World War I are in no sense merely extrapolations to earlier years of results already obtained for recent decades. The earlier figures represent the clearest picture of that period that can now be, or perhaps ever will be, assembled for the particular field to which they relate. The pre-World War I figures are included here both because the author believes they are adequately, though not overgenerously, supported by contemporary source materials and because they show that certain broad trends observable since World War I were continuations of tendencies already in operation in the late nineteenth century.

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