FORTHCOMING PUBLICATIONS

Two National Bureau reports are in final stages of preparation and are expected to be released by autumn. The first of these, Strategic Factors in Business Cycles, is a report prepared by Professor John Maurice Clark of Columbus University for the Committee on Recent Economic Changes. It is an analysis by an outstanding theoretical economist of those factors which are "strategic" in the sense that they influence business conditions and are susceptible of conscious control.

The second is Dr. Arthur Okun's analytic analysis of the trends of production series during the past 50 to 60 years. Dr. Burns' conclusions, based upon the application of a nicely elaborated technique, point to the general tendency of retardation in industry as well as to the presence of periodic swings in rates of change—long cycles— which seem to be related to the more severe business cycles.

Other National Bureau reports now being prepared for submission to the Board of Directors prior to their publication include H. H. A. James's study of mechanization in American industries, Leo Wolman's study of trade union membership, Frederick C. Mills' analysis of recent price movements, Ralph C. Epstein's study of industrial profits and William Thorp's study of national income: various countries.

The next issues of the Bulletin, scheduled for October and December, will include articles on Prices During the Depression by Dr. Mills and on National Income by Dr. Simon Kuznets. Dr. Kuznets' article will present summary estimates of national income in the United States for the years 1929-1932.

**Footnotes**

3. Corporation Contributions to Organized Community Welfare Services (1930) by Foster and Frances E. Croston.
4. Planning and Control of Public Works (1930) by Leo Wolman.
5. The Smoothing of Time Series (1931) by Frederick Macaulay.
6. The Purchase of Medical Care Through Fixed Periodic Payment (1932) by Frederick Williams.

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In 1929 reflects an abnormally high rate of industrial activity. The reason for this remarkably close correspondence in the extent of the employment decline in transportation and in manufacturing, but both lines fared better than the extinction of the industrial depression. The tremendous drop in metal mining reflects the virtual stagnation of the iron and steel industry and the metal trades. The coal figures show a continuation of employment in an already decimated industry.

Most amazing of all is the current drop in construction, a low point for only about one-fifth of the 1929 employment level. The heaviest losses have occurred, of course, in those employment categories in which the largest number of employees are clustered, especially in manufacturing and construction. Manufacturing has suffered a net loss of over three million workers, while of the five million remaining many are on part-time. If the makers of employment and of building activity are to be relied upon, fully seventy-five per cent of the building tradesmen employed in 1929 were unable to find work in their regular trades in the first quarter of 1933. It should be noted that the figure for the first quarter of the current year reflects the inactivity of the winter season in addition to the depression factors. The employment indexes for construction should be used with caution since the reporting is not yet adequately representative of the industry.

EMPLOYMENT CHANGES WITHIN THE MANUFACTURING INDUSTRIES

Comparison by Geographic Districts. Table 2 shows that the employment shrinkage in manufacturing has been unequally distributed among industrial districts, though severe in all. Factory employment in the Mid-Atlantic States has been maintained far better than in any other district, and the number of industrial workers is in this already depressed agriculture. In the non-agricultural areas of the West North Central, too, the drop in manufacturing employment has been relatively less than in the more heavily industrialized districts. Among industries worldwide, manufacturing is shown to have greater intensity along the eastern seaboard with its concentration of population and wealth (the mid-Atlantic and New England regions) than in the East North Central area which includes the growing cities of the Great Lakes and northern Mississippi basin. In the East and West South Central districts almost half of the small number of employees have been dropped from the payrolls of the small manufacturing plants of these non-agricultural sections. In the Mountain States still a smaller proportion, less than half, have remained on the rolls.

Except in the South Atlantic states the scanty industrial population of the agricultural states has sustained a heavier degree of depressive displacement than have the greater number of factory employees in the eastern industrial districts. The latter has fared better, however, than the industrial midwest. The relatively severe difficulty of depression in the rural states is wrought in the midst of the vaster depression in agriculture, and the displaced industrial workers of these regions are swallowed up amid the hardships of the swelling population. For the industrial as against the agricultural states as a whole, however, employment shrinkage in manufacturing has been most severe, both in absolute and relative terms, in the predominantly industrial areas of New England, the Mid-Atlantic and the East North Central. These three combined show from 1929 to 1932 an absolute shrinkage of 2,467 thousand persons and a relative drop of 40.1 percent. In the rest of the country, the absolute shrinkage was 522 thousand persons, a percentage decline of 36.3. Some of the regional differences in manufacturing may be due to differences in the character of the activities, that is, relative proportions of capital and durable goods and of non-durable goods in total output.

Comparison by Individual Industries. Within the manufacturing group there has been marked unevenness in employment trends during the depression. F. C. Mills in his recent study, Economic Tendencies in the United States, has emphasized the importance of the durable goods industries as compared with those producing relatively perishable goods or products destined mainly for direct use by individuals. The present study is again revealed by the comparative employment records of individual manufacturing industries during the current depression. Table 3 shows in striking fashion the comparatively good performance of the food, leather, printing, tobacco and textile industries, while the heavier industries have trailed behind in both the earlier and later stages of depression. The machinery industry has held its relatively well during the first year of depression, but the severe declines in 1931 and 1932 reflect the general inactivity in the manufacture of productive equipment and the accumulating obsolescence of capacity during the later phases of depression. Lumber, cement, clay, glass, and structural steel as a factor in the basic iron and steel industry, with the employment figures, has been reviewed to a level below the virtual stagnation of the construction industry. The effective measure of the effect of construction demand in industrial production is furnished by the Federal Employment Stabilization Board. Some index of employment in the production of major construction materials. This index, upon a 1929 base, drops to 83.6 in 1930, to 66.1 in 1931 and to a low of 44.3 in 1932, representing a cumulative layoff of over one hundred percent.

RELATIVE DECLINES IN EMPLOYMENT IN TWO DEPRESSIONS

For manufacturing and steam railroads it is possible to compare the employment experience of the current depression with that of 1921. The short period of the earlier depression is manifested in the more severe drop in manufacturing employment in 1921 to 76.4 percent of the proceeding year, following recovery. In the current depression two years were required for factory employment to drop to the 1921 level relative to the pre-depression figure. The decline has continued to be even more rapid during the third year of unemployment.
TABLE 4
RELATIVE DECLINE IN EMPLOYMENT
IN TWO DECADES, 1920-1922 and 1930-1932*

<table>
<thead>
<tr>
<th>Year</th>
<th>1920-1922</th>
<th>1930-1932</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Native</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-native</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Data from U.S. Bureau of the Census.

Under-employment and staggered work: underemployment is a significant problem for the economy, as many workers are forced to take on extra jobs or work longer hours to make ends meet. This can lead to increased stress and reduced productivity.

Technology and unemployment: technology has led to increased automation, which has resulted in a reduction in the number of jobs available. However, this has also led to increased productivity, which can offset some of the negative effects of underemployment.

Economic Tendencies in the United States: the post-war period saw a significant increase in industrial production, which led to increased employment. However, this also led to increased inflation, which had a negative impact on the economy.

Seasonal Variations in Industry and Trade: the post-war period saw a significant increase in international trade, which led to increased employment in the manufacturing sector. However, this also led to increased competition, which had a negative impact on the economy.

The economic trends in the United States continue to evolve, with increased automation and technological change leading to increased productivity and efficiency. However, this has also led to increased inequality and underemployment, which continue to be significant challenges for the economy.
The National Bureau of Economic Research was organized in 1920 in response to a growing demand for scientific determination and impartial interpretation of facts bearing upon economic and social problems. Found from bias is sought by the unanimous constitution of its Board of Directors without whose approval no report may be published. Rigorously it holds the National Bureau from being enriched to its members, directors or officers, or from becoming an agency for propaganda.

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A CONFERENCE PLANNING
On June 1 the research staff and special investigators of the National Bureau met with the Executive Committee and the Board of Directors for the purpose of reviewing the National Bureau's program as a whole. Mr. Knutson presided and introduced the question of the advantages of National Bureau activities to the needs and demands of the times. The discussion was then opened by Dr. Mitchell. Foremost among the subjects considered was the attitude of the National Bureau should adopt towards the pressure for investigations of immediate utility in the formulation of programs of social welfare. Today precedents are being set in this country. Federal legislation is clearly in the interest of the nation and cannot go back to where it was. The demand for research work is increased as well as redirected by the novel operations of government and due account must be taken of the responsibility which this situation creates for agencies like the National Bureau.

At the meeting the National Bureau must safeguard its own specific task. It has its distinctive and unique character, as revealed by the definition of its purpose in its charter, by its constitution of its Board of Directors, and by its regulations regarding publications which can ensure that the final product in each case represents not only the careful work of specialists but also the critical judgment of the Directors. The National Bureau has always held the view that every determination of policy should be based on the impartial discovery and analysis of the essential and relevant facts. It has emphasized largely in studying those aspec
tual problems which are susceptible of scientific investigation. Without advocating any line of action, the National Bureau accepts the facts which must be considered regardless of the solution adopted. Indeed, it was felt by those at the conference that the National Bureau should continue to devote the major portion of its attention to the compilation and analysis of the data which are ultimately requisite for economic planning, public or private, systematic or partial. It is particularly fitted for this task since there are many gaps in data which only a skilled staff such as its can fill.

A body that devotes itself so largely to quantitative analysis as does the National Bureau must keep in mind the consideration that statistical measurements are not in themselves economic facts. Every economic fact is the expression of a relationship between a given item and the situation in which it occurs, and the fact is not properly stated until it is referred to the situation in which it is an index. Furthermore, we should not confine ourselves to the study of single problems in isolation. Although factors must often be scrutinized separately for a time, they must presently be regarded as parts of a larger intercalated whole. The interdependence of its parts is one of the outstanding characteristics of the economic system. The maintenance of the relations among parts of the whole economic organism must be kept ultimately in view in every partial investigation we undertake. In this way, and by stressing the practical bearings of the findings of such piece of research, we can contribute towards the development of a real economic science in a form that will make it of genuine use in economic practice and in designing solutions with an increasing measure of success.

The concensus of opinion at the meeting was that the National Bureau should keep its most important statistical series up to date, releasing new figures from time to time, and that it should welcome any attempt to develop a clearing-house service in the field of economic investigation and to develop its share in coordinating research, cooperating whenever feasible with other agencies.

The National Bureau program, including projects which have been suggested in this budget and in others, may be listed as follows. Obviously, to carry out even the projects which seemed to those present at the conference of primary importance would be a considerable resource in addition to those necessary for the completion of the investigations already in progress. But for efficient coordination long-range planning is required. Consequently, the new projects suggested are grouped with those actually in progress under the four major divisions into which National Bureau investigations may conveniently be classified.

A. The national income and its distribution, one of the National Bureau's primary undertakings, has four aspects.

1. Estimates of total income by industrial sources
2. Forms of payment—wages, income from ownership, and profits
3. Distribution of personal incomes

4. Consumption and saving

b. Dr. Krusen's work is expected to present in revised and extended Dr. King's estimates of national income classified by industrial sources and forms of payment. This work, for the years 1932-39, is now being carried on in cooperation with the Department of Commerce. It is planned that he will proceed to an examination of the distribution of personal incomes by size and to a study of the adjustment of income estimates to changes in the cost of living of the various income classes.

To supplement Dr. Wolman's study of wages, related to the second aspect, a history of wages in the United States was proposed. Also that income from ownership—dividends, interest, rent and profits—should be studied intensively.

Under the fourth aspect, the uses of income, are included the subjects of standards of living, capital formation, and the government's activity. Of these, only one aspect is now being studied, that of capital formation as evidenced by the production of capital goods. To supplement this investigation by a study of the factors directly related to this problem were suggested: savings by business enterprises and by individuals; the mechanism for the investment of savings by persons with full account taken of investment losses; and finally the obsolescence of corporate securities. These aspects are not independent of each other but are interrelated under the heading of standards of living: a history of economic welfare in the United States, the costs of social insurance, and consumers' expenditures on consumer's incomes.

Under the third topic included under the uses of national income, it was suggested that government expenditures and their objects should be studied, as well as sources of government revenues and borrowings, covering such subjects as taxation and its economic effects, and the mechanism and effects of government loans. While there is no dearth of treaties for the government, there are few studies on regard taxes only as burdens and forget the services which we obtain in exchange. Hence the government's increasing share in national income, its role in meeting the social needs and economic emergencies, regulating private enterprises and maintaining economic balance—ought also to be considered.

B. The two major elements of income—production and prices—are classified by areas, industrial divisions and functions, and are currently being studied by Dr. Mills. Other phases of prices include the interrelations among money, credit and inflation; flexible and rigid prices and the effects of their occurrence; reaction of the price system to 'inflation'; and the price system as an instrument of economic control.

C. When we turn to the next major division, the functioning of our economic organization, we find the National Bureau's several studies of economic fluctuation. Current activity in the field includes the recently published Statistical Advertisements in Industry and Trade by Dr. Knutson; a volume by Arthur F. Burns on secular trends in production since 1870, scheduled for publication in the fall and in the second volume of Dr. Mitchell's study of business cycles which is in prospect for early 1954. To complete this series it was suggested that other types of economic fluctuation might profitably be investigated, namely, major cycles and random perturbations.

Under a sub-heading, Mechanism for Production, four subjects were suggested. While it was felt that the National Bureau could contribute little to the great mass of information already available on agriculture, in the industrial fields such topics as the relation between scale of business, costs and profits, the histories of individual industries, and economic stabilization through planning offered a wide area of work.

A study of mechanism for the distribution of goods and services, and specifically, of the distributive trades, were urged as of fundamental importance. Dr. Stone pointed out that whereas we had made great strides in increasing the efficiency of fabrication, little had been accomplished in the comparable field of distribution.

As to the financial mechanism, a fourth element of our economic organization, it was felt that research dealing with the banking system of the United States was clearly within the scope of the National Bureau's work, but that despite the additional factual evidence rapidly becoming available, some fundamental aspects of the institution of credit upon industry could not as yet be divorced from opinion.

In the field of international relations the National Bureau was urged to give much more attention to movements of population. With the necessity for international planning forcing itself upon us, these are particularly important.

D. On the problem of maintaining economic balance in a system of economic change, there was prolonged discussion over the concept of balance. Dr. Mitchell said that he liked the phrase economic balance because it meant interdependence of all factors. Colonel Rorty and Mr. Roberts especially endorsed a general survey of the nature of economic balance that would indicate the tolerable adjustment of the various elements, so proportioned and so related functionally as to allow the effective maintenance of the system. Another feature of the session was devoted to the vagueness of the concept as well as to the mechanical implications it conveyed. It was generally agreed that the problem was worth of further exploration without bar-