

Reports of the National Bureau of Economic Research

THE NATIONAL INCOME AND ITS PURCHASING POWER
By Willford I. King. (In Press).

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NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.
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National Bureau Gathers Figures On Public Works As A Stabilizing Factor

CARRYING forward and supplementing the investigations made for President Hoover's Committee on Business Cycles and Unemployment, and on Recent Economic Changes, the National Bureau of Economic Research and the Department of Commerce are completing an investigation to find the facts upon which to base conclusions as to whether expenditures for public works can be controlled in such a way as to stabilize economic conditions in the United States.

This investigation is in charge of Dr. Leo Wolman, of the research staff of the National Bureau of Economic Research, under the general direction of Drs. Edwin F. Gay and Wesley C. Mitchell, Directors of Research. Federal, State and local governmental bodies have cooperated in this project.

Total Volume of Public Works

The first task was to make estimates of the total volume of public works in the United States since 1919, indicating the nature of these expenditures, if possible, estimates of the total volume of employment furnished by public agencies, and results of these expenditures.

Next, came a study of the relation between expenditures for public works and movements of the general business situation, with particular reference to the volume of employment and unemployment. Other parts of this project include:

Studies of the relation between the price of credit for public agencies and the total volume of bonds issued by these public agencies for public works expenditures.

Geographical studies of public works expenditures in the United States, classified by the nature of the public works.

Studies of the administrative problems involved in the undertaking of public works projects in the United States since 1919.

Speeding Up or Slowing Down Projects

Studies of the legislative calendars of Municipalities, State and Federal governments in the United States, with a view to determining the relation between these calendars and the feasibility of postponing or accelerating public works projects.

Studies of the relation between fluctuations of employment in various localities and public works programs in those localities.

Studies of large projected public works programs proposed by City Planning Commissions, with the view to estimating the total volume of employment in the next five or ten years that may be made available as the result of the carrying out of these projects.

Studies of instances in the United States, where Municipalities, Federal or State governments have attempted to control their public works expenditures.

Studies of foreign experience with public works as measures for relieving unemployment.

A discussion of the theoretical aspects of the public works and unemployment problem.

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Contributing subscribers enrolling for the twelve months beginning Dec. 1st, 1929 will receive a complimentary copy of *The National Income and Its Purchasing Power* as well as all the other publications to be issued during the period of subscription.

An Organization
for Impartial
Investigation

NEWS-BULLETIN

National Bureau of Economic Research, Inc.

To Find Facts
Divested of
Propaganda

No. 35

51 MADISON AVENUE (MADISON SQUARE) NEW YORK CITY

December 16, 1929

National Income Totals \$89,419,000,000

Increase of \$23,470,000,000 Recorded in Ten-Year Period, New Figures Show

Per Capita Incomes of Salaried Employees and of Wage Earners Grow, the former from \$976 in 1909, to \$2,084 in 1927 and the latter from \$527 in 1909 to \$1,205 in 1927.

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IN 1928 the total realized income of the people of the continental United States, estimated in current dollars, was \$89,419,000,000, an increase during the ten years from 1919 of \$23,470,000,000 and more than trebling the income realized twenty years ago, according to advance figures taken today from a report soon to be issued by the National Bureau of Economic Research.

The full report, covering more than 500 printed pages, will give in detail the annual changes in The National Income and Its Purchasing Power from 1909 to 1928. It gives the results of a four years' investigation by Dr. Willford I. King, aided by the National Bureau's Research Staff, under the general supervision of Professors Edwin F. Gay and Wesley C. Mitchell, Directors of Research. This report brings the figures more nearly up to date than any of the National Bureau's previous accomplishments in presenting the country's economic condition.

Study of the set of comprehensive tables which accompany the report discloses the almost steady upward trend of the nation's income during the last two decades. The only lapse since 1919 came in the period of deflation in 1921 when there was a shrinkage of \$10,628,000,000, or from \$73,999,000,000 to \$63,371,000,000. With the passing of this year of depression the steady increase in the figures began, as shown in the following table:

1922	\$65,925,000,000
1923	74,337,000,000
1924	77,135,000,000
1925	81,931,000,000
1926	85,548,000,000
1927	88,205,000,000
1928	89,419,000,000

Commenting on the total of realized income the National Bureau's report draws attention to the fact that the figures do not include any allowance for the income which might be imputed to housewives and householders for services rendered to their own families, nor the value of goods and services received by employees in the form of expense accounts, nor money earned through odd-job employment. It is pointed out that the first two classes of items are so great in value that, were they included, the total income figures might be largely increased. Further, it is stated that the total of realized income does not include any income arising from changes in the value of property.

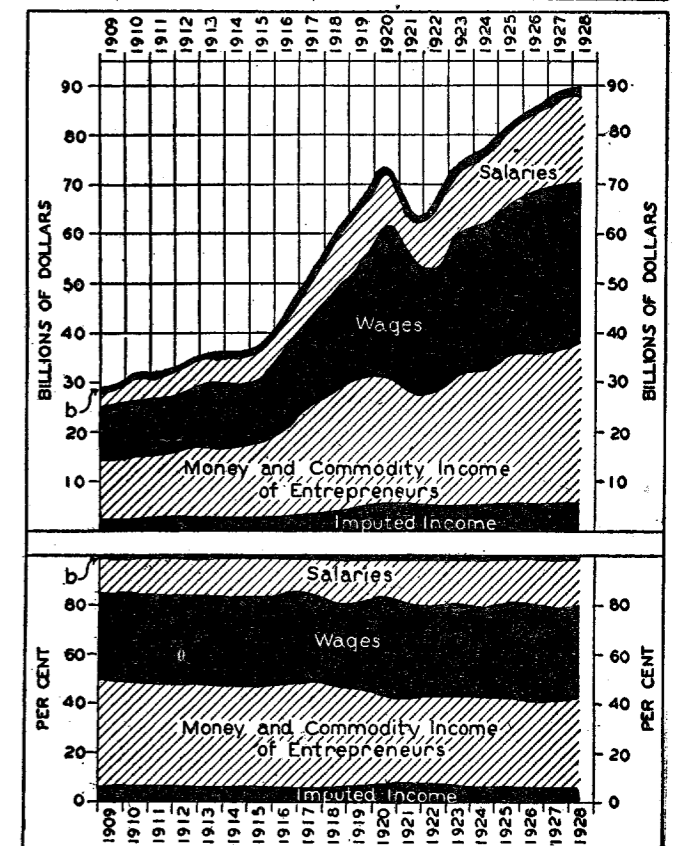
Wages \$32,235,000,000 in 1928

An analysis of the income table discloses some interesting facts relative to the income of entrepreneurs and of employees, the latter including both salaried workers and wage earners. The share of entrepreneurs, the term applied to persons whose principal occupation is the conduct of an enterprise which they control, including many farmers, small merchants, physicians, lawyers, and real estate

agents, in 1922 was \$28,225,000,000. Those working for wages received \$24,553,000,000, salaried workers received \$12,050,000,000, while the amount that went to employed persons in the form of pensions and compensations was \$1,097,000,000, or a total of \$37,700,000,000.

In 1928, according to the National Bureau's table, the share of entrepreneurs had increased to \$38,296,000,000. Wage earners received \$32,235,000,000, salaried workers \$17,823,000,000, while the amount paid the recipients of pensions and compensations fell off to \$1,065,000,000, making the total income of employees \$51,123,000,000. Incidentally, the 1928 figures show that the employees have added \$13,423,000,000 to their 1922 income while the entrepreneurs' income has only increased by \$10,071,000,000, or a gain by employees over the gain by entrepreneurs of \$3,352,000,000 in ten years.

ESTIMATED REALIZED INCOME OF THE PEOPLE OF THE CONTINENTAL UNITED STATES



b—Pensions, Compensation, etc.

One of the items included in the total of the peoples' income is designated in the National Bureau's report as "imputed income," which refers to the estimated value of the services rendered to their owners by "durable direct

NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.

THE National Bureau of Economic Research, Incorporated, was organized in 1920 in response to a growing demand for exact and impartial determinations of the facts bearing upon economic, social, and industrial problems.

The Bureau seeks not merely to determine facts, but to determine them under such auspices as shall make its findings carry conviction to Liberals and Conservatives alike. It deals only with topics of national importance which are susceptible of quantitative treatment.

By issuing its findings in the form of fact reports, entirely divorced from propaganda, the Bureau hopes to aid all thoughtful men, however divergent their views of public policy, to base their discussions upon objective knowledge as distinguished from subjective opinion.

No report of the Research staff may be published without the approval of the Board of Directors. Rigid provisions guard the Bureau from becoming a source of profit to its members, directors or officers, and from becoming an agency for propaganda.

The Bureau assumes no obligation to present or future contributors, except to determine and publish facts.

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or consumers' goods." That durable consumable commodities render services of great economic value is a fact accepted by students of economics. As proof of this the National Bureau's report gives the following example:

"If each of two men working in the same office has accumulated \$10,000, one man may purchase a house and the other invest in bonds and use the interest received on these bonds to pay the rent of his residence. Under these circumstances both men have used similar amounts of accumulated funds to obtain similar services and, if the two houses are alike, there seems to be no logical reason for assuming that one man receives more income from his \$10,000 than does the other. When we save money we have the option of investing it and using the money return to buy such services of goods as we desire, or, we can use the money to purchase the goods and thus control all of their future services. The services have equal value in either case. It seems only fair, then, to include in the income of the people of the nation an item representing the value of the services of the durable consumption goods which they own."

Per Capita Incomes Doubled

One of the tables included in the National Bureau's report indicates that the per capita realized income, when measured in dollars current at the various dates, more than doubled between 1909 and 1923 and has since been steadily increasing until, in 1928, the average per capita income for all inhabitants of the United States amounted to \$749. For the family of five members this would make an income of \$3,745. As a matter of fact, the report points out, the total realized income is far from being equally divided. In 1928 the average person working for a money return received \$1,898.

According to the table giving the per capita receipts for the various classes of employed persons it is shown that, estimated in current dollars, the salaried employee of 1909 received an average of \$976. per annum. This figure increased steadily each year until in 1927 it reached \$2,084. with only one lapse of \$44. in 1921. Wage workers, during the same period increased their incomes from \$527. to \$1,205. The wage figures, however, were subject to greater fluctuation from year to year, notably in 1921, when they fell off \$290. from the amount received the previous year.

This rate of increase in the per capita income of salaried employees and wage workers, from 1909 to 1927, is fully shown in the following table:

	Salaried Employee	Wage Worker
1909	\$ 976.	\$ 527.
1910	1,002.	552.
1911	1,022.	540.
1912	1,045.	568.
1913	1,066.	594.
1914	1,088.	552.
1915	1,096.	582.
1916	1,148.	679.
1917	1,204.	771.
1918	1,265.	940.
1919	1,453.	1,029.
1920	1,740.	1,273.
1921	1,696.	983.
1922	1,715.	1,012.
1923	1,831.	1,150.
1924	1,896.	1,134.
1925	1,950.	1,176.
1926	2,025.	1,217.
1927	2,084.	1,205.

The report of the National Bureau of Economic Research will contain much information which will answer questions frequently asked during discussions among all classes of employed persons. For instance, the report shows that the wage, salary and pension bill of the nation is larger in every year covered by the tables than the share of the entrepreneurs and other property owners. The differential which before 1917 was relatively small has grown until in 1927 the employees were receiving a realized income almost 40 per cent more than the entrepreneurs.

How Government Adds to Income

One of the interesting features of the bureau's report is the estimate of the Government's part in furnishing income to its citizens. This estimate includes the federal, state, and local governments, taking in counties, cities, villages and even school districts. It gives the total number of persons working for each of the various divisions of government service in 1919 as 4,042,000. The high figure is accounted for because it includes the army, navy and marines in addition to the large clerical force employed just after the world war. In 1920 the total number of government employees dropped to 2,719,000, due to the reduction of the army, navy and the discharge of the unnecessary clerical force. The total number of governmental employees in 1927 was 2,819,000. The actual cash return to all workers in the various branches of government in 1927, estimated in current dollars was \$4,992,000,000., or \$503,000,000 more than in 1919.

Tables showing the total realized income in current

dollars derived from various industries by individuals is another interesting feature of the report. Income derived from the unclassified industries in 1909 was greater than that from any other source. Manufacturing was second as a producer of money return to workers and agriculture ranked third. In 1925 the unclassified industries and manufacturing competed for first place and the mercantile industry had risen from fourth place to third, outranking agriculture. At this period the value of agricultural products had declined until they were little more than half the value of the manufacturing net output.

In a table in which the income derived from the various fields has been reduced to percentage it is shown that the relative importance of agriculture declined slightly between 1909 and 1914, increased vigorously during the war period, dropped abruptly between 1919 and 1921 and has since been able only to maintain itself on the level of the latter year and now producing less than 10 per cent of the nation's income in contrast with the 18½ per cent produced in 1918.

The following table shows in detail the incomes drawn from these four important industries from 1909, the figures for agriculture and mercantile being carried up to 1928:

	Agriculture	Manufacturing	Mercantile	Unclassified
1909	\$ 4,988,000,000	\$ 5,481,000,000	\$ 3,685,000,000	\$ 5,718,000,000
1910	5,218,000,000	6,204,000,000	3,735,000,000	5,938,000,000
1911	4,815,000,000	6,251,000,000	4,034,000,000	6,142,000,000
1912	5,294,000,000	6,838,000,000	4,041,000,000	6,562,000,000
1913	5,133,000,000	7,332,000,000	4,488,000,000	7,126,000,000
1914	5,081,000,000	6,914,000,000	4,753,000,000	7,316,000,000
1915	5,488,000,000	7,362,000,000	4,839,000,000	7,627,000,000
1916	6,631,000,000	10,260,000,000	5,323,000,000	7,876,000,000
1917	9,188,000,000	12,477,000,000	6,342,000,000	8,357,000,000
1918	11,205,000,000	14,794,000,000	6,830,000,000	7,089,000,000
1919	12,182,000,000	16,090,000,000	8,019,000,000	7,476,000,000
1920	11,057,000,000	19,531,000,000	8,726,000,000	9,721,000,000
1921	6,967,000,000	13,274,000,000	8,440,000,000	11,435,000,000
1922	7,300,000,000	13,957,000,000	8,680,000,000	12,350,000,000
1923	8,026,000,000	16,835,000,000	10,772,000,000	13,056,000,000
1924	8,325,000,000	16,276,000,000	11,050,000,000	15,254,000,000
1925	9,089,000,000	16,866,000,000	11,996,000,000	16,452,000,000
1926	8,214,000,000		12,442,000,000	
1927	8,371,000,000		12,754,000,000	
1928	8,109,000,000		13,137,000,000	

Three Research Associates To Be Named; Applications Are Now Being Received

THE Directors of the National Bureau of Economic Research will appoint three Research Associates for the academic year 1930-31. The purpose of these appointments is to provide mature workers with facilities for the conduct of quantitative research in economics. They are not intended to aid persons working for higher degrees.

Each Research Associate will receive a stipend of \$3,600 per year, plus the expenses of the round trip between his home and New York. Research Associates will be in residence at New York during eleven months of the year beginning September 15, 1930.

It is desirable that candidates for appointment as Research Associates have definite research projects under way at the date of application, and that these projects should have reached such a stage that completion within a period of one year may ordinarily be expected. Research projects proposed by candidates may fall in fields now cultivated by members of the staff of the National Bureau, or may relate to subjects not hitherto covered in the work

of the National Bureau. It is assumed, however, that the work of Research Associates will deal primarily with the quantitative aspects of economic problems.

Publication rights to the results of studies conducted by Research Associates will be reserved to the National Bureau of Economic Research.

Appointment of Research Associates will be made upon recommendation of a Committee of six, five to be chosen from the group of university representatives on the Board of Directors of the National Bureau, the sixth to be appointed by the Social Science Research Council.

Applications for appointment should be submitted to the Directors of the National Bureau of Economic Research, 51 Madison Avenue, New York City, not later than February 1, 1930. Each application should be accompanied by a summary statement describing the research project on which the applicant proposes to work. This statement should indicate the status of the project at the time the request is submitted. It may be accompanied by manuscript or other material. Since the National Bureau cannot assume responsibility for the safe return of such material, duplicate copies should be retained by the applicant.

Application forms will be forwarded upon request.