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# NEWS-BULLETIN

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To Find Facts  
Divested of  
Propaganda

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JULY 3, 1930

## AMERICA SPENDS \$3,500,000,000 YEARLY ON PUBLIC WORKS

Governmental Construction of All Kinds  
Constitutes Between 35 and 40  
Per Cent of All Construction

### TOTAL EXPENDITURES ANALYZED

Stabilization Proposals Discussed in Report  
of Committee of President's Conference—  
Based on Fact-Finding Survey Made by  
National Bureau of Economic Research,  
Inc.

**P**UBLIC works constitute between 35 and 40 per cent of all construction both public and private in the United States, and in 1928 and 1929 amounted to roughly \$3,500,000,000 a year, having risen to this level from somewhat less than two billions in 1923, according to the results of a survey made by the National Bureau of Economic Research, Inc., for the Committee on Recent Economic Changes, of the President's Conference on Unemployment.

This survey immediately in charge of Dr. Leo Wolman, of the National Bureau's Research Staff, under the general direction of Drs. Edwin F. Gay and Wesley C. Mitchell, directors of research, furnishes the factual basis of a report and recommendations for the planning and control of public works as a stabilizing factor made by the Committee of which Arch W. Shaw, of Chicago and New York, is chairman.

The complete text of the National Bureau's fact-finding survey and the report of the Committee are being issued in a bound volume of 300 pages by the National Bureau of Economic Research, entitled *Planning and Control of Public Works*.

"The largest single category of public construction is road building," says the National Bureau's report. "Road building in 1928 accounted for an expenditure of more than one and one half billion dollars.

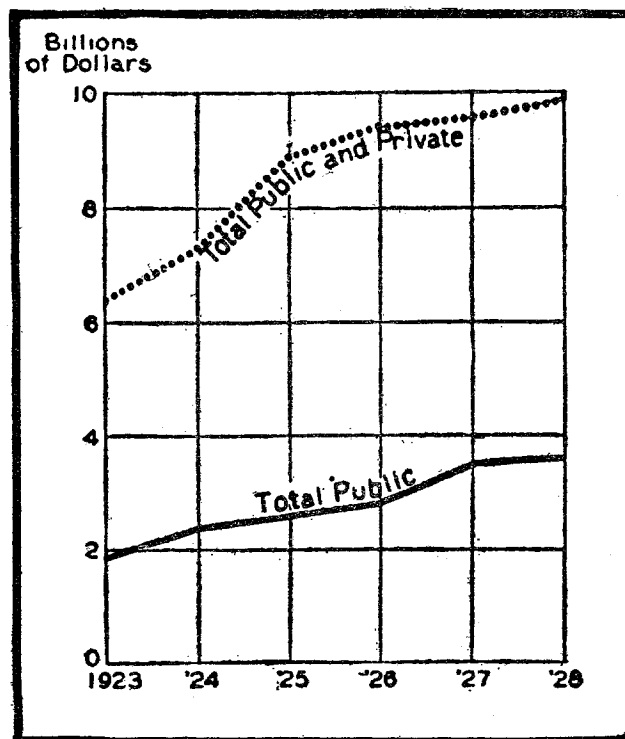
#### Twenty Per Cent Spent in New York State

"Outlays by the federal government on public works are less than ten per cent of the total in the country. The federal government and all governments within the geographical area of New York State together account in recent years for 20 per cent of the total expenditures on public construction in this country.

"This proportion will probably be exceeded during 1930 because of the increased budgets of the federal government, and of the governments of New York City and New York State.

"Of the outlays of the federal government on public works more than a third is spent on public roads and more than one-half on roads and ship building.

ESTIMATED TOTAL VOLUME OF PUBLIC AND PRIVATE CONSTRUCTION IN THE UNITED STATES, 1923-1928.



"The leading expenditures of state governments are on road building, the elimination of grade crossings, and on public buildings.

"American municipalities spend their appropriations for permanent improvements largely for improving the facilities of transportation, in the form of expenditures for subways, bridges, viaducts, street extensions and widening; on public buildings, largely schools and hospitals; and on improving the facilities of water supply and sewage disposal."

#### Behind in Improvement Programs

The National Bureau's report points out that while it is impossible to make a statistical estimate of the probable expenditures on public works in the next years, it is clear that the principal spending agencies are behind in their programs of permanent improvements. The future programs of American governments reflect the pressing physical requirements of our communities and their rising standards of living. Except in the case of communities whose growth has stopped or whose rate of growth has been retarded, the problems of traffic congestion, or water supply and sewage disposal, and of ade-

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THE National Bureau of Economic Research, Incorporated, was organized in 1920 in response to a growing demand for exact and impartial determination 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.

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## America Spends \$3,500,000,000 Yearly on Public Works

(Continued from page 1)

quate hospital and school facilities appear to impose on American governments programs requiring mounting outlays for those purposes in the future.

Constitutional limitations on the public debt and the burden of a rising tax rate are the most serious limiting factors on the uninterrupted rise in appropriations for public works. All local governments are limited by constitutional provision in their power to incur debt. In general, debt-incurring power is fixed by the relation between the outstanding debt and the assessed valuation of property.

Since 1919, it would appear that the tax rate and the per capita debt burden has increased more rapidly than the assessed valuation of property. Sample studies of the margins of unused debt power, however, indicate that the bulk of American governments were not in 1928 and 1929, at least, in a state of financial embarrassment, because of the operations of these constitutional limitations. A not inconsiderable factor in the situation has been the creation of quasi-public authorities, such as the Port of New York Authority, empowered to borrow without involving the credit of the government and to initiate and operate public works.

### Public Financing and the Money Market

How the volume of the public debt is affected by changes in the money market, is explained in the National Bureau's report. Continuing, the report says in part:

"The disorganized state of the money market during the war, for instance, produced a marked drop in the flotation of public bond issues. During a period of extreme stringency, like that prevailing in 1928 and 1929, governments reduced their issues and for pressing needs resorted to the use of short term issues and to temporary drafts on their current revenue. Thus the total of municipal loans for new financing dropped from \$1,150,000,000 in the first nine months of 1927, to \$962,000,000 in 1928, and to \$918,000,000 in 1929. With the easing of money rates at the close of 1929, there was a sharp rise of municipal issues in December 1929, bringing the total for that month above the total for any December since 1920, excepting 1921.

"The very large number of agencies concerned with the planning, initiation and execution of public works in this country present obvious problems in the control of these operations. The impression of confusion that arises out of the detailed consideration of the expenditures of the many governments of the country is clearly exaggerated, since the total construction output of American governments is \$3,500,000,000 or the equivalent of the value product of any vast competitive industry. The fact of the multiplicity of public planning and administrative agencies, nevertheless, remains. But the influence of this factor can be measurably reduced in proportion as our public economies are placed on sounder foundations.

### Possibility of Accelerating Programs

"Where, in other words, the dictates of efficient government have led to the use of adequate budgets, and the planning of expenditures over a series of years, it would appear to be possible to use the machinery so set up for the purposes of accelerating public works when such a program is deemed necessary.

"The existence of future five or ten-year programs of public projects, as in the cases of Cincinnati and Detroit, or in the building of subways and water supply systems in New York City, has created the requisite machinery of control.

"In general, the activities of city and regional planning commissions, of bureaus of municipal research, and of voluntary conference committees such as exist in Rochester and Philadelphia, or an agency like that recently created by the Governor of New York State, have hastened the prospects for future planning and control.

"A factor in the planning and control of public works is their high degree of seasonal variation, which, if it were found to be unavoidable, might prevent a substantial increase in the volume of such undertakings during the winter months. A study of the seasonal variations in various types of construction contracts from 1919 to 1928 discloses the widest variations among contracts for public works and public utilities. Results arrived at by comparing the average deviation of the seasonal index from 100 and the range from the lowest to the highest months, for the various groups of construction contracts are shown in the following tabulation:<sup>1</sup>

Series	Average Deviation	Range
Total Contracts, All groups	15.2	58
Residential	11.8	49
Commercial	12.5	40
Industrial	13.8	60
Public Works and Public Utilities	25.6	84

<sup>1</sup>Taken from the unpublished data of Wesley C. Mitchell and Simon Kuznets, National Bureau of Economic Research.

"The greater seasonal variability in the last series may well be due, in part at least, to the large proportion of public expenditures that is used in the construction of highways, where improved practices and better planning may in the future reduce these ranges as they have been reduced in many other types of construction.

### Proposed Controls Discussed

"On the question of the uses of proposed controls over public construction, the prevailing theories show the uncertainties characteristic of many of our explanations of basic economic problems. The increase in the volume of public works as a direct solution of the unemployment problem has historically proved a failure. This method has failed to absorb a substantial proportion of the unemployed; it has led to the undertaking of works not really required by the government; and to great wastes in the administration of the job.

"The method of the 'prosperity reserve' involving as it does the retardation of public works, has produced further difficulties. In many periods public construction is subject to natural retardations due to money stringency, a tight labor market, the rising cost of materials, or like factors. The bulk of American governments also would seem to be far behind in their programs for meeting the physical necessities of the situation.

"Retardation would, therefore, meet with resistance on the part of public officials. The most feasible form of control, consequently, appears to be that of the temporary acceleration of works already projected. The effective achievement of this goal depends, in turn, on the progressive improvement in the management of our many governments.

### Problem of Timing

"Where, then, these procedures for control have become available, acceleration in the program of public construction may be regarded as a practicable measure. In the administration of such control, the crucial problem is obviously that of properly timing the increase in public expenditures. The profound significance of the time element is revealed in an analysis of the fluctuations in contracts awarded for public works and public utilities as compared with the movement of contracts awarded for other types of construction as well as with fluctuations in general business conditions in the country. This study, made by Wesley C. Mitchell and Simon Kuznets of the National Bureau of Economic Research, appears to show that, in the period from 1919 to 1924, contracts awarded for public works and public utilities were not highly sensitive to cyclical movements in business. Thus, in the cycle 1919-1921 contracts for public works and public utilities turned down at recession, and continued to decline all the way through the revival of the next cycle. But of

### CONSTRUCTION CONTRACTS AWARDED IN THE FIRST FOUR MONTHS OF 1929 AND 1930\*

GENERAL CLASS	FIRST FOUR MONTHS		PER CENT INCREASE (+) OR DECREASE (-)
	1929 (In thousands)	1930 (In thousands)	
Commercial buildings	\$322,215	\$277,198	- 14.0
Industrial buildings	243,268	184,219	- 24.3
Educational buildings	107,705	110,754	+ 2.8
Hospitals and institutions	29,565	65,237	+120.7
Public buildings	49,125	43,735	- 11.0
Religious and memorial buildings	28,106	34,043	+ 21.1
Social and recreational projects	48,909	45,899	- 6.2
Total non-residential buildings	\$828,893	\$761,085	- 8.2
Total residential buildings	721,247	366,029	- 49.3
Total buildings	\$1,550,140	\$1,127,114	- 27.3
Public works and utilities	347,750	452,910	+ 30.2
Total construction (\$5,000 and up)	\$1,897,890	\$1,580,024	- 16.7

SOURCE: F. W. Dodge Corporation, Statistical Division.  
\* The data cover 37 states.

the other groups, residential, commercial and industrial building, only industrial contracts showed the same type of behavior, although they ceased declining during the last period of business contraction. Again in the cycle, 1921-1924, public works and utilities began to decline early and continued to decline mildly through the first phase of the next revival. In this cycle, both commercial and residential building revived earlier. During the cycle 1924-1927, however, when there had been a large and persistent increase in the volume of public works, the revival of public works and utilities preceded the revival of general business.

"From this tentative analysis it is clear that the proper timing of expansions in public construction programs may well have palpable effects on the course of general business. The experience of the winter of 1929-1930 affords some evidence also that it is possible to overcome administrative difficulties, to accelerate projects already planned, and to hasten the planning and execution of new ones. In the operations of the departments of the federal government, there are many illustrations of changes in procedure that have advanced construction considerably ahead of the normal schedule. Thus the Supervising Architect of the Treasury Department has increased his staff of architects, engineers, and draftsmen to facilitate the program of public building. It is estimated that federal expenditures for buildings and ground improvements, which amounted to \$31,000,000 in 1928 and \$45,000,000 in 1929, will have increased in 1930 to roughly \$65,000,000. The Department of Justice has been engaged in facilitating the clearing of titles to sites for government buildings and in expediting condemnation proceedings, with the result of a substantial increase in the number of condemnations. The Veterans' Bureau called for bids on hospitals earlier than had been originally planned. The Secretary of Agriculture made allotments of Federal Aid Highway funds to the states several weeks earlier than usual. By legislative enactment, the Federal Aid Highway funds were increased from \$75,000,000 to \$125,000,000 a year during 1931, 1932 and 1933.

"No satisfactory appraisal of the effects of various measures of acceleration can be made until some months after the close of 1930, when the statistical record of the whole of that year will have become available. The latest figures to be had as the report passes through the press cover only the first four months of 1930. In comparison with the first four months of 1929, these figures show an increase of thirty per cent in the contracts awarded for public works and utilities. During this same period all other types of construction showed a decline of twenty-seven per cent, residential building being the principal factor in the decrease."

## Midyear Finds Bureau With Four 1930 Studies Completed; Eleven Others Under Way

Since the first of the year the National Bureau of Economic Research has published the results of three scientific investigations in book form, has sent to the printer completed manuscript for a fourth publication, and is prosecuting as rapidly as scientific thoroughness permits eleven other studies.

Books published in the first half of the year are:

*The National Income and Its Purchasing Power.*

*Corporation Contributions to Organized Community Welfare Services.*

*Planning and Control of Public Works.*

In the hands of the printer, for publication in the early fall is the completed manuscript of Volume II of International Migrations. In this volume, a group of distinguished students of population and migration will analyze and interpret statistics collected by Dr. Imre Ferenczi, of the International Labour Office, and published last summer by the National Bureau.

Carrying forward and supplementing material summarized in *Recent Economic Changes in the United States*, which was published by the National Bureau in the spring of 1929, Professor Frederick C. Mills of the National Bureau's Research staff is engaged upon a study of International Economic Tendencies. This will cover the pre-war years 1901-1913 and the post-war years 1922-1929 in four countries, the United States, Great Britain, Germany and France. Subjects that will be covered are: growth of population, supply and cost both of capital and of credit, profits, the technical equipment of industry and the physical volume of production, volume of trade, wholesale and retail prices, employment, unemployment and wages. This investigation is expected to show the direction, rate and stability of changes in the various economic activities and will compare the movement of different economic elements in the periods and countries studied.

### Investigations Under Way

Among the other investigations being carried on by the members of the Research staff of the National Bureau are the following:

- Sickness Insurance in the United States;
- Interest Rates since 1857;
- Wages and Labor Costs;
- Prices of Agricultural and non-agricultural commodities;
- Unemployment in the United States;
- Profits;
- Productivity of Labor in Industry;
- Mechanization of Industry;
- Seasonal Variations in production, stocks, shipments and orders.

In addition, Dr. Wesley C. Mitchell is continuing work on the second volume of his treatise on *Business Cycles*, and Dr. Willard L. Thorp is completing the editing of the first volume of an encyclopaedia of statistical series.

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