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XIII

THE DEVELOPMENT OF A PLANNED PUBLIC WORKS POLICY IN THE LIGHT OF RECENT EXPERIENCE

Stimulated Public Works during the Depression

Though long advocated for the purpose, only during the recent depression was an attempt made on a large scale to stimulate business and alleviate unemployment by accelerating and expanding public construction. The data analyzed in the preceding chapters might seem to warrant the conclusion that this attempt met with but scant success. Despite the unusual efforts exerted, public works throughout the country, Federal, state and local, far from increasing, shrank in some three years to little more than half their previous total volume. Although Federal outlays grew rapidly, their increase was more than offset by the steady decline in the public works expenditures of local governments, state, county and municipal. Even in the latter half of 1933, after the restraints imposed upon the expansion of public construction by adherence to the gold standard had been removed, and with over $3,000,000,000 made available for public works as part of a program of thoroughgoing 'reflation', construction expenditures still showed little increase, and recourse was had, in the shape of the Civil Works Administration, to more direct methods of increasing purchasing power.

Yet these facts afford no adequate criteria for passing judgment on the merits and defects of the principle of planned flexibility in public works. For the element of advance plan-

ning was absent (except, after 1931, for the work of the Stabilization Board with respect to Federal programs), and what was done was in the nature of hasty, almost overnight, improvisation attempted in a desperate effort to meet an unexpected emergency. The depression merely proved justified the misgivings of those who at the outset were skeptical concerning the possibility of a sudden large expansion of public works in the absence of prior planning and the provision of 'credit reserves'. The numerous obstacles in the way of accelerating public works at short notice when no carefully laid plans exist for this purpose present almost insuperable difficulties, as shown in preceding chapters.

In point of fact the 'public works plan', as understood by economists, was not put into operation following the recession of 1929, nor under the circumstances could it have been. In the light of these considerations the significant fact is rather that, despite the absence of adequate preparation, much was actually accomplished in expediting public construction in certain limited directions during the depression, notably, as shown above, by the Federal government, and especially in roadbuilding. Indeed, had local authorities, state, county and city, expanded their construction expenditures as greatly as did the Federal government during the depression, the dollar value of total construction, public and private, which declined from $13,000,000,000 in 1928 to $4,000,000,000 in 1932, would have remained almost constant, while its physical volume, if we allow for the decrease in construction costs in the interval, would not unlikely have shown an increase. Experience with stimulated public works during the depression served to demonstrate on the one hand that long-range advance planning and budgeting are absolutely indispensable for success; and, conversely, what might be accomplished with adequate preparations.

EMPLOYMENT DIRECTLY CREATED

Figures of construction employment in the United States are notoriously inadequate and no accurate measure is possible of the number engaged directly or indirectly on public construction throughout the country. Public construction work has been performed in the past mainly by innumerable private contractors who have kept their own payrolls without reporting them to any central organization.

The 1929 census of the construction industry, undertaken by the Census Bureau as part of the 1930 Census of the United States, contains statistics of wage earners in the construction industry by months during 1929, but they do not afford an adequate basis for the estimation of the total numbers engaged in public construction throughout the country. Apart from the failure to distinguish public from private construction employment, the compilation covers only the contracting group of the industry, omitting the architectural and engineering groups and construction work performed by means of force accounts by industrial concerns, public utilities, municipalities, and common carriers on new construction and repair and maintenance.[1] Moreover, complete detailed reports were required only from concerns doing a gross business of $25,000 or over during 1929. Information about construction employment may also be obtained from the state indexes of nine states which compile monthly data on the number employed in building operations. Since January 1931 the Bureau of Labor Statistics has also compiled a monthly series on employment and payrolls in building construction. These figures relate, however, only to a sample of reporting establishments in certain localities, the number included being steadily increased. Neither of these sources is of much help in estimating public construction. The fact that estimates of the

[1] A. D. Morehouse, The Practical Application of Construction Census Statistics, *American Statistical Association Journal, Supplement,* March 1933, p. 190.

number directly employed on all construction have varied by as much as 100 per cent indicates the lack of information. The Census of Occupations for 1930 shows 2,562,000 'gainfully employed' on construction and an additional 453,000 engaged in 'construction and maintenance of streets, roads and sewers', while the Census of Construction shows only 1,008,000 directly employed on construction work.[2] The former figures probably represent an overestimate because many tend to report construction as the occupation although their employment may have been intermittent or only for a brief period. The latter figure, on the other hand, is almost certainly too low, since it includes neither contractors doing a business of less than $25,000 in 1929 nor construction work not performed under contract. Exactly where, however, between these two limits the correct figure lies, cannot be calculated.

Nor do we know the amount of direct employment given per dollar of expenditure by types of work and different spending agencies. Three definite figures have been published.

"First, an expenditure of $5,785 on general construction under contract is equivalent to one employee on the job for one year, according to the Census of Construction data for 1929. Second, an expenditure of $3,826 for public roads will provide employment on the job to one man for one year, according to a statement made by Thomas MacDonald, Director of the Bureau of Public Roads. Third, one man is given one year's direct employment for each $5,000 expended on public buildings erected by the Federal Government, according to a statement issued by the Treasury Department." [3]

The basic material available concerning employment on public construction is even more fragmentary and uncertain.

[2] Corrington Gill, Construction Statistics, *American Statistical Association Journal*, March 1933, pp. 51–2.
[3] *Ibid.*, p. 53.

For roadbuilding, monthly figures have been compiled since January 1931 by the Bureau of Public Roads of the number employed directly on Federal and state highways, including state maintenance work, but not on work performed by local subdivisions, city, county and township, which are not under the supervision of state highway departments. These have been given in Chapter IX. Formerly, the Federal Employment Stabilization Board requested, among other data, the average number employed on each project from Federal construction agencies as part of their monthly progress reports. These afford some information on employment on Federal construction over a limited period. Figures of PWA employment have been presented in Chapter V.

For the country as a whole and all types of public works, estimates vary markedly, but computations based on various counts and series of incomplete coverage would seem to indicate that perhaps three-quarters of a million men were employed on the average directly on all public construction during 1927–30.[4] Between 1928 and 1932 building costs fell in the ratio of 100 to 70 or 75. Allowing for this reduction in construction costs, an estimate of perhaps something around 600,000 employed on all public construction in 1932 and 1933 appears justified on the basis of the meagre and inadequate data available.

INDIRECT EMPLOYMENT

Equally little light is obtainable on the no less important question of the indirect wage payments and employment resulting from construction expenditures. The construction industry gives employment indirectly to workers in thousands of factories producing the materials and equipment used by it, and to those operating the carriers which transport them.

[4] See *Planning and Control of Public Works*, p. 115.

These wage earners in turn exercise a demand for the products of innumerable other industries.

A variety of sources appear to agree in indicating that on the average in normal times about 35 per cent of total outlays in construction enterprises of all kinds is paid directly by the contractor in wages to the laborers employed on the project.[5] Employment, however, is generated no less surely, if more indirectly, by expenditures for building materials and by payment of interest, profits, taxes and such elements as by direct payments to labor. The estimate is rather generally accepted that not less than 80 per cent of construction expenditures finds its way into the pockets of wage earners either engaged upon the project or in transporting and manufacturing building materials.[6]

According to the Bureau of Public Roads, merely in the field of manufacturing and transportation of road materials two workmen are given employment for every one actually engaged in roadbuilding.[7] A study by that Bureau of the extent to which expenditures in the construction of concrete pavements [8] provide employment immediately and more remotely concludes: "it seems probable that of the total expenditures for road construction at the present time, nearer 85 than 75 per cent may be thus directly traced into the hands of labor." Although job labor receives only a little more than 15 per cent of the sum directly expended on construction—an exceptionally low percentage clearly not representative of the other types of construction—

[5] G. Underwood, Estimating Construction Costs, p. 573; F. G. Dickinson, Public Construction and Cyclical Unemployment (*Annals*, American Academy of Political and Social Science, Supplement, September 1928), p. 205; V. A. Mund, Prosperity Reserves of Public Works (*ibid.*, May 1930), p. 15; U. S. Bureau of Labor Statistics, *Bul. 491*, August 1929, p. 221.

[6] Dickinson, *op. cit.*, p. 190; *cf.* Otto Mallery in *Business Cycles and Unemployment*, p. 234, and A. L. Bowley and F. D. Stuart in *Is Unemployment Inevitable?*, p. 368.

[7] *Annual Report for 1931*, p. 7.

[8] Bureau of Public Roads, *Where the Highway Dollar Goes* (February 1932); *Annual Report for 1933*, pp. 39–40.

the labor expended in producing construction materials, in transportation and in other ways involves many processes which ramify in many directions. The belief is expressed that the findings are typical for public works generally.

In addition to the direct and indirect employment afforded by expenditures on public works, there is the 'secondary' employment created as a result of the demand of these workers for consumers' goods, calculated as being roughly as large again, in appropriate circumstances, as the 'primary' employment given directly and indirectly by construction expenditures. The validity of this calculation is discussed more fully in Chapter XIV.

Stabilization through Public Works

Federal and local programs

The formulation of a program for the stabilization of employment through the long-range planning of public works lies outside the scope of this study. Such a program would probably necessitate measures to ensure both the postponement of public improvements in times of business activity with the object of reserving them for subsequent periods of stagnation, and the starting during periods of unemployment of construction projects which otherwise would be undertaken later.

Such planning would also probably have to proceed along lines of action on the part of both Federal and local governments. Until drastic reforms have been effected in the financial policies and practices of the latter, however, it would seem, in light of recent experiences, that main reliance must be placed on flexible Federal programs. The depression has shown that the credit of local units, at least as hitherto administered, is not sufficiently strong in periods of severe eco-

nomic contraction to sustain expanded expenditures financed by borrowing. Foreign experience has shown that impairment of the credit of local governments during depressions is by no means inevitable, but in the United States it has been true on the whole in recent times. Furthermore, local authorities do not have the same inducement as does the national government to conduct their construction operations on a flexible schedule in the interests of greater economic stability. Industrial fluctuation, with its attendant periodic unemployment, is a national problem, responsibility for the solution of which is generally felt to rest primarily with the central government. Though local units could doubtless even singly contribute in some measure, through advance planning and control of public works, to the alleviation during depressions of distress in their own communities, they could not, unless they acted in concert, hope to stimulate recovery materially. If any one local unit alone expanded its construction work its credit might be weakened relatively to others, and the influence on business in general would probably be negligible. The Federal government could not be expected, however, to bear the entire burden of attempting to lessen economic instability through flexible construction programs. Nor, in view of the small proportion of total public works which its outlays normally represent, as compared with those of local governments, could any such attempt be successful if it did not have some support from the latter. If the adoption of the principle of planned elastic construction expenditures were deemed desirable, the problem would thus become one, first of the Federal government taking the initiative, and next of encouraging or inducing local governments to follow its example. The limited means hitherto available to the Federal government of effecting the latter purpose—through such grants as those regularly made to the states for cooperative road construction—have been strengthened during the de-

pression by the enlarged and additional assistance of this nature which it has afforded on condition that the work undertaken should be put in hand before a specified date. It should be clearly realized, however, that if such devices are employed on a wider scale in the future by the Federal government for the purpose of inducing local agencies to adopt a policy of flexible construction, they will necessitate not merely encouragement to expand in times of depression, but also, what is probably a more difficult end to accomplish, contraction in boom periods.

The Federal government is today in a better position than are local agencies to lay plans and build up the administrative machinery for conducting its construction operations on an elastic system in the future. With the passage in February 1931 of the Employment Stabilization Act, and the creation under it of a Federal Employment Stabilization Board charged with planning construction some years in advance so that it could be regulated according to business conditions, the principle of advance planning and control of public works was officially endorsed and a first important step was taken in that direction. The PWA is of necessity occupied mainly with the attempt to contend with an emergency situation, but the machinery set up under it could if desired doubtless be utilized in part, when the emergency has passed, for the purpose of implementing a permanent policy of flexible public works. Today it is a central clearing house of information concerning public works of all sorts, including state and municipal, throughout the country. The service that the National Resources Board, which is in a position to take long-range views, could render in an advisory capacity towards the solution of basic problems is very great. If a real measure of control over construction outlays is to be effected, however, a greater degree of permanent unification or centralization in administration, or at least supervision, than has

hitherto existed is likely to prove indispensable. Should local agencies, state and city, also eventually attempt to plan and control their construction operations, the need of coordination embracing central and local authorities would arise, but that problem could await solution until both had proceeded further along this path.

STATE LEGISLATION

Legislation for planning proposed or adopted by various states during the last fifteen years has been summarized in Chapter I. The objective of all measures was the relief of unemployment during periods of depression through the expansion of public works, but the aggregate results achieved were seen to have been insignificant. Some measures were subsequently repealed, others never became operative. None was adequate to serve the purposes or achieve the ends for which it was designed.

Schemes of planning and control must be much more comprehensive and carefully devised than those hitherto adopted by states before a flexible public works plan for future operation can be hoped for. In the Federal Employment Stabilization Act of 1931 state governments have a model for legislation which they could modify and adapt to their own local conditions. Adoption of such measures, however, will not in itself be sufficient for the adequate control of public works in the case of states any more than in the case of the Federal government. A greater degree of centralization of public works policy, whether achieved through the consolidation of the public works functions now usually discharged by several independent departments, or merely through greater coordination between them and centralized supervision and control, is hardly less of an essential prerequisite for adequate

control over their construction projects by the states than it is for the Federal government.

In state schemes for the control of public works the importance, in addition to preparing plans, of devising long-term financial programs and providing the machinery to secure funds when needed is probably greater than in the case of the Federal government. Such measures would be necessary to prevent a recurrence of the experiences of the states during the recent depression when, unable to increase expenditures for public works from current revenues, many also found themselves unable to raise the funds by borrowing owing to the high interest rates required on new issues or as a result of exhausted credit or the heavy burden of debt charges already carried. An example of legislation along these lines is afforded by the so-called Pennsylvania Plan described in Chapter I.[9]

MUNICIPAL LONG-RANGE PLANNING

It is more difficult to speak of municipal programs for the stabilization of employment through planned public works. The political structures of local governments, their fiscal organization and methods of financing their outlays on permanent improvements, the very nature of their public works activities, vary so greatly as between individual cities and counties that the formulation of any uniform and standardized method of procedure would be impossible. Nevertheless, despite these local differences, certain common problems inhere in almost all proposals for the long-range planning of public works. The program formulated by Professor W. N. Loucks for Philadelphia may be regarded as illustrative in its broad outlines and indicative of the general nature of the problems which other municipalities would have to meet to

[9] *Cf.* Report on Public Works and Housing (State Emergency Relief Board of Pennsylvania), pp. 8–9: Summary of Certain Problems Involved in the Establishment of Long-range Public Works Planning Procedure in Pennsylvania.

ensure the successful operation of a flexible public works policy. In the opinion of Professor Loucks, the necessary groundwork for long-range planning in Philadelphia involves the following changes in the administration of the city's municipal affairs.[10]

"1. A comprehensive, authoritative, and long-run plan for the future development of municipal facilities must be set up.

2. A long-run program of capital outlays and financing must be constructed and coordinated with the City plan.

3. The city must recover and find ways for resolutely preserving a much larger unencumbered margin of borrowing capacity than it now has.

4. The procedure of acquiring money for improvement work must be arranged so that funds can be acquired quickly to finance projects started upon short notice.

5. The procedure of planning, authorizing and putting under contract municipal improvement projects must be simplified, shortened and arranged so that a portion of the procedure can be completed long in advance of the time the work is to start.

6. The procedure of acquiring title to property needed in improvement work must be made less time consuming, or capable of being completed considerably in advance of the time when the property actually is to be occupied."

The specific practical suggestions for laying this groundwork are comprised of several points. The most obvious and essential prerequisite for the allocation of construction projects to years of unemployment is perhaps a comprehensive long-range city plan which would classify public improvements according to the urgency of their need. Since many municipalities already have planning commissions, the problem would be to enlarge their scope, increase their authority

[10] *The Stabilization of Employment in Philadelphia through the Long-Range Planning of Municipal Improvement Projects* (University of Pennsylvania Press, 1932), pp. 260 ff.

and give them the financial support essential to the formulation of comprehensive long-range programs of public improvements. After this initial step, the formulation of a program of capital outlays undertaken in orderly sequence and controlled to create greater stability of employment could more easily be logically developed. "The relation of a capital outlay program to long-range planning for the stabilization of employment should be clearly evident." Unless a city "has laid carefully devised plans for financing its public works projects for some time to come, there will be little chance of postponing or advancing any significant portion of a long-run public works program. . . . Obviously such a program must be kept flexible." [11] The preparation and adoption of a financial and improvement program covering a relatively long period, perhaps a decade, would constitute an integral part of any public works plan.[12]

Not less important, in view of the obvious impossibility of increasing construction expenditures when most needed if municipal borrowing capacity is exhausted, would be the formulation of provisions designed to ensure the preservation of a substantial unencumbered margin of such borrowing power. This might entail changes in constitutional debt limitations.[13] Some modification of existing financial, and espe-

[11] *Ibid.*, p. 269.

[12] For examples of long-run capital outlay programs actually proposed see: *An Eight-Year Financial Program for Detroit* (Detroit Bureau of Governmental Research, 1927); *The Joint Bond Program, County, School District and City of Cincinnati, Annual Financial Analysis* (Cincinnati Bureau of Governmental Research, 1929); *A Capital Expenditure Program* (Buffalo Municipal Research Bureau, 1928); *A Long-Term Financial and Improvement Program for the City of Schenectady, New York* (Capital Budget Commission, Schenectady, 1929); *The Need of Budgeting Capital Expenditures for Indianapolis* (Civic Affairs Committee, Indianapolis Chamber of Commerce, 1929); and in general, *The Preparation of a Long-Term Financial Program,* by C. E. Rightor (Municipal Administration Service, New York, 1927).

[13] Mr. Otto T. Mallery has suggested that the present debt limit of cities should be reduced by one-half of one per cent in normal times so that this

cially borrowing, procedure would also clearly be essential, as would the revision and simplification of the administrative procedure involved in the authorizing, planning and putting under contract of improvement projects. The desired degree of control over public works could not be achieved unless certain short-cuts were devised which reduced to a minimum the interval between the authorization and the actual initiation of projects, to make possible their prompt acceleration when desired. Finally the modification of existing procedure in acquiring, by condemnation or otherwise, property needed for the prosecution of public improvements would also be necessary.[14]

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limit might be increased by one per cent upon declaration of the Governor of the state that a condition of unemployment emergency and industrial depression existed (Public Works to Stabilize Employment and Industry, *American Labor Legislation Review*, March 1931).

[14] The following consecutive steps are suggested in the formulation of a long-range planning procedure for Philadelphia by Dr. Loucks:

1. The setting-up of a city plan and a program of capital outlays.

2. The authorization of those loans standing first on the capital outlay program.

3. The authorization and planning of those projects given priority by the City plan.

4. The suspension of further procedure steps in anticipation of unemployment.

5. The putting under contract and the starting of authorized projects; the conversion of authorized loans into treasury funds.

6. The survey of the City plan and capital outlay program to select projects which, although planned for the future, could be undertaken immediately.

7. The authorization of those loans necessary for the financing of projects found indispensable to advancement.

8. The authorization and planning of those projects found capable of advancement.

9. The putting under contract, the starting of authorized projects, and the conversion of authorized loans into treasury funds; or the suspension of further procedure steps in anticipation of future unemployment (*op. cit.*, pp. 289–294). A suggested structure and assignment of duties for an administrative agency to direct the proposed procedure are also advanced (*ibid.*, pp. 294 ff.).

Development of a Flexible Public Works Policy

It thus becomes clear that an elastic system of public works would require many measures of preparation, advance authorization, and long-range physical and financial planning.[15] The effective organization of public works so as to counteract the fluctuations of private business would call for far-reaching changes on the part both of the Federal and local governments in their present procedure in undertaking and carrying out construction projects. A beginning has already been made in important directions in setting up the machinery which should make it possible to put the proposal into comprehensive operation in the future, if deemed desirable in principle. Apart from measures adopted by the Federal government, interest has been manifested by an increasing number of states and cities in the possibility of controlling more effectively their construction expenditures. Several local legislative and other committees have been charged to make concrete recommendations for legislation with this end in view.

In a few instances this has already been done, as, for example, by the Industrial Research Department of the University of Pennsylvania in its detailed report, cited above, on the Stabilization of Employment in Philadelphia. The problem of stabilizing employment in general is now engaging the attention of many city authorities and other bodies, and almost invariably in the suggestions advanced the planning and control of public works figures prominently. The adoption of such a policy has been facilitated by the recent trend towards city and regional planning on the one hand, and, on the other, the more system-

[15] For a comprehensive survey of the measures adopted with this object in view in the various countries of Europe, in Australia and in Japan, with discussion of the administrative and financial problems involved, see *Unemployment and Public Works.*

atic preparation of budgets, and in some instances of long-term financial programs for public improvements.[16] The growth in number and effectiveness of city planning organizations, municipal research bureaus, and special committees which are either appointed by or are in close touch with local governments, is materially aiding in the development of long-range planning, as is the movement towards simplification of the political and financial structures of local governments and the centralization of functions or authority.

[16] *Planning and Control of Public Works*, pp. 166–7. *Cf.* instances of such experiments in Detroit, Buffalo, Cincinnati and elsewhere mentioned above, Ch. VII.