

UC Berkeley
IURD Working Paper Series

Title

INSTITUTIONALIST ECONOMICS AND THE INTELLECTUAL ORIGINS OF NATIONAL PLANNING IN THE UNITED STATES: A STUDY IN PLANNING THOUGHT

Permalink

<https://escholarship.org/uc/item/2dp6z252>

Journal

Institute of Urban and Regional Development

Author

Gellen, Martin

Publication Date

1984-04-01

INSTITUTIONALIST ECONOMICS AND THE INTELLECTUAL ORIGINS
OF NATIONAL PLANNING IN THE UNITED STATES:
A STUDY IN PLANNING THOUGHT*

Martin Gellen

Working Paper No. 422

April 1984

Institute of Urban and Regional Development

University of California, Berkeley

*This paper was originally delivered at a symposium on planning theory at the annual conference of the American Collegiate Schools of Planning, October 21, 1983 in San Francisco, California.

INSTITUTIONALIST ECONOMICS AND THE INTELLECTUAL ORIGINS OF
NATIONAL PLANNING IN THE UNITED STATES: A STUDY IN PLANNING THOUGHT

Martin Gellen

Introduction

This essay deals with the intellectual origins of national planning in the United States. It is an examination of early twentieth century thinking about the purpose and rationale for public planning. The effort to formulate a rationale for public planning grew out of a period in our history when government began extending its powers into areas of human affairs where traditionally government had no legitimate role. This is no longer a central issue in planning theory. Planning theory today is much more concerned with the question of the planning process itself and the dynamic relationships within that process between organization, planners as individuals, and social interests who actively seek to influence or control the planning process.

The rationale for planning on the other hand was an important intellectual problem for an era in which there was little public planning but political forces were pushing government, and particularly the national government, to assume planning powers in order to offset the tendencies towards depression and stagnation in the economy and to encourage modernization of a number of nationally vital but ailing industries. The question about the nature of governance in modern industrial economies is a central problem which we are facing again today although in a new and different form. There appears to be a growing although not coherent consensus that the United States requires some form of "industrial policy" if a significant part of our population as well as some of the older regions of the nation are not to descend into a semi-permanent state of economic decline and stagnation. However, this public policy issue is similarly fraught with conflict and tension because it requires the extension of public power into areas of social life where the legitimacy of government intervention has never been firmly established.

National Planning and the New Deal

National planning refers to the efforts of the central government to apply the principles of scientific management to problems of national social and economic development. It first became a permanent and legitimate function of central government in the United States during the 1930's under the New Deal. While there was a consensus within the Roosevelt Administration during the 1930's that the national economy had to be subject to some type of conscious management and control, the type and the extent of those controls was the subject of extensive debate.

One wing, represented by Rexford Tugwell, advocated a form of centralized economic planning which would operate through 3 levels of decision-making. The first level was to be a central planning board whose purpose was to think about national economic problems, formulate broad objectives, and lay down central lines of policy. Specific plans would be formulated by a system of "industrial councils" representing the various sectors of the economy and composed of representatives of business, labor and consumers. Some kind of "neutral" fact-finding board of technicians, economists, engineers, and other experts would perfect, coordinate and enforce these plans (Tugwell, 1933: 193-96).

A more moderate approach, which was advocated by the National Resource Committee (later known as the National Resources Planning Board) tended towards a form of "sectoral," or "partial" planning. It was neither centralized, directive nor compulsory. It dealt with the planning or replanning of the strategic parts of our social and economic order --- the financial system, transportation, communications, infrastructure, energy agriculture and natural resource development (water, lumber, fuels, etc.) health care, education,

housing and local government services. The purpose of this kind of planning was less concerned with administration of these sectors; that would be left in the hands of business, or local and state governments in the case of education. Rather, the primary concern was with the structural reform of these sectors. Because they were "strategic" sectors. their progress and evolution would have a broad influence on the rest of the economy. No central planning agency were required for this; only an expansion of the executive or perhaps the creation of new cabinet level executive agencies for particular sectors such as education, cities, transportation, or energy. This version of national planning was based on the underlying belief that in an increasingly complex, industrial society like ours, the role of planning was to bring into "some form of concert" the various plans and planners, both public and private, which largely influence the path of social and economic development (Graham, 1976).

The more conservative wing of the planners sought to avoid the complications and difficulties of structural reform. They advocated macroeconomic planning and compensatory public investment programs to achieve full employment. They also favored some social reforms particularly with regard to the organization of labor, farmers and small business. This strategy saw government as a countervailing force which could offset the destabilizing tendencies in American capitalism and overcome the social frictions and inequities of the system by helping economically weak groups such as labor, small businessmen, and farmers. The objective of this type of planning was to restore "economic balance" and "social balance" to the nation's political economy by redressing inequities, by providing financial assistance or by otherwise exempting these groups from the discipline of the competitive market (Hansen, 1938; Ware and Means, 1936; Galbraith, 1962).

Lepawsky's portrayal of New Deal planners as consciously affecting a

pragmatic "style" of planning is misleading (1976; 1978). The advocates of economic planning in Washington during the 1930's were in fact highly critical of the opportunistic and inconsistent approach to policy-making which prevailed in the Roosevelt Administration (Hawley, 1966; 472-494). The inconsistencies reflected the bald fact that there was little agreement within the administration as to what kind of permanent role government should play in managing the economy (Hawley, 1966: 472-494; Sternsher, 1964: 109-141). Not only was business opposed to central economic planning, but even government sponsored efforts at cartellization led to sharp political conflicts within a whole number of industries (Kolko, 1976: 122-56). The political conflicts which stymied planning experiments like the National Industrial Recovery Act and the National Resources Planning Board disillusioned many of the planners and tempered their wildly idealistic conceptions of economic planning as a solution the crisis of the Depression (Griffith, 1939; Galloway, et.al., 1941: 66-86).

However, advocates of national planning did agree upon several things. They all believed that a market oriented economy was giving way to an administered system dominated by large enterprises. They viewed this as an inevitable development --- the product of the application of science and technology both to production methods as well as economic organization. At the same time, they also agreed that a system of private planning by big business and by small business in trade associations seemed to be the cause of the great economic inequities and the structural imbalances which the Depression had made painfully clear to the entire nation. They also believed that economic abundance could be attained by fostering cooperation between all the "functional" groupings and classes in the economy --- consumers, farmers and laborers --- and that to achieve this state required some type of public control over private economic decisions.

Institutionalist Economics

In this essay I want to explore the theoretical perspective which underlay New Deal efforts at economic and industrial planning. The primary intellectual inspiration for national planning came from Institutionalist Economics. Institutionalist Economics represented the first conscious expression of a "planning theory" in the United States. The central conclusion of Institutionalist economy theory was that public planning was a vital and necessary activity of modern industrial societies. The entire theoretical perspective of the neo-classical tradition, by contrast, was hostile to planning and viewed most forms of collective action as economically "inefficient" and illegitimate.

Before World War II, Institutionalism was in many respects the pre-eminent school of economic thought in the United States. Its theoretical structure was developed during the 1880's and 1890's by Thorstein Veblen when he was at the University of Chicago and John R. Commons from the University of Wisconsin. Through the figures of Wesley C. Mitchell and John Maurice Clark during the first third of the twentieth century, Institutionalism inspired major theoretical and empirical contributions to macroeconomic theory in the United States and which laid the foundation for many of the New Deal innovations in fiscal planning during the 1930's.

Veblen is the best known member of the school and its seminal theorist, who had the broadest intellectual influence upon American social thought. Wesley Mitchell was probably the single best known and academically influential economist the Institutionalists produced. Trained at the University of Chicago under both Veblen and John Dewey, Mitchell formulated a model of business cycles

from his teacher's theories about the cultural conflict between money-making and goods-making in modern industrial economies. Mitchell had the same disdain of deductive economy theory as did his teachers. His empirical studies of business cycles (1913; 1927) represented important contributions to modern macroeconomics and led to the development of a system of leading and lagging indicators by which economists could predict and model business cycles. He pioneered the field of quantitative economics in the U.S. and was one of the founders of the National Bureau of Economic Research at Columbia University. Along with John M. Clark, Mitchell was also responsible for establishing the first serious Federal government efforts at fiscal planning, economic forecasting and economic stabilization under the New Deal in the 1930's (Burns, 1952).

John Maurice Clark was another Institutionalists who was active in the New Deal. He was the leading economist of the National Resources Planning Board and the theorist behind the Administration's public works planning. Clark was also a pioneer in the development of macroeconomic theory; he introduced the idea of the "accelerator," and made other important contributions to understanding the dynamics of employment and investment (1934, 1936). His 1923 book Studies in the Economics of Overhead Costs was broken important ground in the theory of social costs and social accounting. His Social Control of Business (1926) was a standard introductory economics textbook in American Universities from the mid-1920's till the early 1940's (Hickman, 1975).

Clarence Ayres was originally trained in philosophy under John Dewey at the University of Chicago and created the Texas school of Institutionalism. Ayres was one of the few self-acknowledged followers of Thorstein Veblen. He sought to integrate Veblen's institutionalism with Dewey's instrumentalism, especially in his first major book, The Theory of Economic Progress (1944). Ayres is important in the development of the school because he was the intellectual link between

the pre-World War II Institutionalists and the neo-Institutionalists who continued the tradition particularly in agricultural and labor economics (Gruchy, 1972). Ayres was also responsible for integrating the general body of Institutional theory and giving it a far more systematic formulation than could be found in the works of Veblen, Clark or Commons.

Other prominent Institutionalists who were active in the New Deal include Rexford Tugwell, Coleman Woodbury, John Kenneth Galbraith, Gardiner C. Means, Alvin Hansen, and Paul Douglas (Lepawsky, 1978; Clawson, 1980.). They clustered around the National Resources Planning Board, but many of them also did research and policy analysis for the Departments of Commerce and Interior, and the Federal Reserve Board. The Department of Agriculture, under the tutelage of Henry Wallace, recruited many prominent Institutional economist and produced some of the most innovative planning efforts of the period (Baldwin, 1968). The Institutionalists on the NRPB in particular were responsible for promoting Wassily Leontieff's early work on input-output modelling and Milton Friedman's work on the consumption function. They commissioned John Kenneth Galbraith to study the economic impacts of federal public works programs, and sponsored Alvin Hansen's and Harvey Perloff's work on intergovernmental relations and fiscal planning (Lepawsky, 1976).

As a school of economic thought, Institutionalism went into decline during the 1950's. Most of its leading figures were prominent economists and intellectuals who left the academies to work in government during the 1930's and consequently failed to propagate a new generation of teachers and scholars to replace them in the post-war period. Institutionalism also lost its influence in the academic establishment with the shift in the 1950's to a more conservative brand of economics. John Hicks in England and Paul Samuelson in the United States had integrated Keynes with equilibrium theory, and this

"neo-classical" synthesis became the dominant view among academic economists. Institutionalism survived however in many state colleges and universities, including the Universities of Nebraska, Colorado, Iowa, Michigan and Texas; it also continued to flourish in sub-fields like labor and agricultural economics. Its practitioners maintain an academic society called the Association for the Study of Evolutionary Economics which publishes the Journal of Economic Issues. Despite the second-class status which Institutionalism holds within the economics profession today, some very influential modern economists nevertheless were either inspired or trained by the Institutionalists. They include Wassily Leontieff, Alvin Hansen, Arthur Burns, Richard Ratcliff, E.J. Mishan, Simon Kuznets, Eli Ginzberg, Kenneth Boulding, Arthur O. Hirschman, James Buchanan, Gunnar Myrdal, and Josef Schumpeter. Institutionalism also influenced a number of important American social theorists such as Lewis Mumford, Robert S. Lynd, and C. Wright Mills.

In terms of our own field, urban and regional planning, the line of influence going back to the Institutionalists is also a direct one. Harvey Perloff and Rexford Tugwell, who helped set up the urban and regional planning program at the University of Chicago, were steeped in the Institutionalist tradition. The unique contribution of the "Chicago School" was its integration of policies planning with city planning (Perloff, 1952). Melvin Webber, who was responsible for shaping planning education and research at the University of California at Berkeley, was a student of Clarence Ayres, the famous Institutional economist and philosopher at the University of Texas.

I could go on at some length delineating the channels through which Institutional economics influenced national planning, economic development planning and urban and regional planning. However, this essay is less concerned with intellectual geneology that it is with the way in which Institutional

Economics functioned as a point of departure for planning thought in the United States and the intellectual basis it provided for the emergence of public planning as a legitimate governmental function. Institutionalism was in effect the "planning theory" of the first half of the 20th century.

Institutionalism and Economic Theory

Institutionalism is a doctrine which insists on the importance of studying empirically the connections between economic institutions and other aspects of culture. This led the Institutionalists to a much different view of the nature of economic systems than prevailed in the neo-classical tradition. The Institutionalists did not view the economy as tending towards some kind of equilibrium, or steady state. They rejected the doctrine of Natural Law, which underlay both the Classical and Neo-Classical schools of economic theory, and according to which economic behavior was seen as following immutable principles much as the physical world obeyed the laws of physics. In this sense, they were evolutionists and Darwinists rather than believers in natural law and the Newtonian conception of the universe. They regarded economics not as the study of the regularity of market patterns, processes, and behaviors which explained the inevitable balancing of supply and demand, but rather the evolution of the economy and its historic process of development. Moreover, they contended that the driving force behind all economic evolution was technological innovation.

The Institutionalists criticized neo-classical theory for its formalism and its excessive tendency towards deductive methods. They also critiqued neo-classical theory for its hedonistic psychology, methodological individualism, and its assumptions about conscious rationality as the fundamental basis of economic decision-making. While the neo-classical

economists viewed human beings as motivated by sensations of pleasure or pain and therefore explained economic behavior in terms of motives of self-interest which were derived from these sensations; the Institutionalists argued that the activities which these sensations gave rise to were dependent not so much upon rational individual choices dictated by self-interest alone but upon individual's the cultural milieu. The Institutionalists were in fact proponents of "behaviorist" psychology. They argued that economic behavior was not based on hedonistic calculations but was in large measure the product of habits formed by education, customs and traditions. As a result, economic behavior was subect it was subject to a process of cumulative growth and adaptation. What determined therefore the character of any economic system was not the interaction of individuals pursuing their self-interest, but rather cultural and social institutions which determined what legitimate and illegitimate needs and which also determined the ways in which individuals could go about satisfying their needs. For the Institutionalists, the central problem of economics was not a theory of rational choice between alternatives, but rather the interaction between technology and culture which determined economic structure and its evolution over time.

It should be kept in mind that the Institutional School developed at a point in history when the line dividing sociology from economics was not as clearly drawn as it is today. The two disciplines were much more closely linked both theoretically and methodologically during the early twentieth century than they are today. Without violating norms of academic respectability, Institutionalists could therefore examine the linkages between the economic order, government and social institutions in a way that is not possible in contemporary academic economics. The overlap also allowed the Institutionalists to analyze and study the fundamental changes in the relations between the

economy and government which were taking place in their own era and to appreciate the significance of these changes far more than did the academic economists of that time who were steeped in the neo-classical tradition.

The Conflict Between Technology and Institutions

To understand the influence of Institutionalism upon planning thought we must look at the ideas of Thorstein Veblen, who was the foremost theorist of the school and the most widely read outside of the academies. His basic ideas are contained in a number of works, including The Theory of the Leisure Class (1899), The Theory of Business Enterprise (1904), The Place of Science in Modern Civilization, and other Essays (1919), and Engineers and the Price System (1921). Much of the work of Clarence Ayres (1944, 1952) is merely an extension of Veblen's ideas. John Kenneth Galbraith's book, The Industrial State (1967), represents a contemporary reformulation of Veblen's theory of "managerial capitalism." Figures like Mitchell, Clark, Means, and Tugwell were not so much social theorists as they were economic analysts, empirical researchers and planners, who elaborated many of Veblen's insights and applied them in research and to issues of public policy.

Veblen viewed the economic evolution of human society in terms of two principles: technology and institutions. By institutions was meant (1) inherited beliefs and traditions and 2) customary modes of acting --- as well as the class distinctions and status arrangements upon which they were based. Veblen saw institutions are inherently static --- they tended to glorify the past. Institutions as such were ceremonial in character, that is they were widely prevalent beliefs and practices which were largely customary and often assumed a magical quality in the consciousness of the average person.

Institutions were thus conservatory and inhibitory in nature and tended to impede technological change and economic progress in most societies.

By technology Veblen had in mind not tools per se, but a type of behavior, namely, the employment of scientific knowledge for the attainment of useful ends. Technology is knowledge about nature which leads to procedures for controlling or manipulating nature, whether it be physical, social or inner personal nature. Clarence Ayres captured this notion quite eloquently in his definitions of science as "the knowing aspect of technology, and technology [as] the doing aspect of science" (1952:305). Technological behavior was cumulative, adaptive, and developmental. Tools and skills proliferate as new knowledge allows human beings to create new combinations of them. Technological behavior was based on instrumental ways of thinking, inquiry into the causal relationships underlying observed reality and problem-solving processes, all of which were rooted in learning processes and experimentation as modes of thought. Ceremonial behavior, on the other hand was based on habitual modes of thought embedded in traditional practices and customs, existing power relationships and patterns of authority. While technological behavior was cumulative, adaptive and by its nature subject to self-correcting evaluation, institutions by contrast were fixed and subject to change only through a break in the continuity of the culture in which they existed.

The Institutionalists saw technological innovation as a permanent force in modern history which over the long-run determined the institutional superstructure of human society. However, they also contended that, because institutions were backward-looking and conservatory, the adaptation of institutions to the changing technological foundations of culture was slow and marked by conflict between those individuals whose status and power were threatened by technological change, on the one hand, and those persons and

groups, on the other hand, who stood to gain from new technology. While culture and knowledge evolved in response to the impact of science and technology, institutions invariably lagged.

Institutional adjustments involved two phases. The first was "ceremonial" adaptation. Advances in the arts and sciences become accepted only to the extent that they are consistent with the pre-existing value structures and pre-existing relationships of social status and power. That is, new knowledge and technology are translated into patterns of behavior that are instrumentally warranted at a rate and to the extent that pre-existing institutions are preserved and/or enhanced. The second phase is what Ayres and the Neo-Institutionalists call "progressive institutional change." This occurs when new ways of doing things which are instrumentally superior force a change in value and belief structures so that old habits and practices are discarded and new institutions and organizations come into being.

According to Institutionalist theory then, "economic development" was a function of the degree of pressure of technological change against the inertia of traditional modes of organized behavior and political power. By this definition, rapid economic growth and advance take place in societies which are able to sustain a revolution in patterns of life and in the relative power and status of traditional groups and interests. From this perspective, most of the social and economic "problems" of modern history, i.e., mass poverty, underdevelopment, economic stagnation, etc., can be seen as the product of outmoded institutional arrangements which prevent social systems from fully utilizing and reaping the benefits of the evolving technological basis of human culture.

Veblen argued that the conflict between technology and institutions could be

traced back to a fundamental conflict in all human cultures between what he called "the instinct of workmanship" and the "instinct of exploit." Veblen, following the psychological theories of his day, explained behavior as a product of fundamental human impulses which expressed themselves in forms which were culturally determined. The "instinct of workmanship," for example, grew out of the largely social aspect of human nature, under which man is "as a matter of selective necessity ... an agent."

He is, in his own apprehension, a centre of unfolding impulsive activity --- 'teleological' activity. He is an agent seeking in every act the accomplishment of some concrete, objective, impersonal end. By force of his being such an agent, he is possessed of a taste for effective work, and a distaste for futile effort. He has a sense of the merit of serviceability or efficiency and of the demerit of futility, waste, or incapacity. This aptitude or propensity may be called the instinct of workmanship. (Veblen, 1967: 67).... The instinct of workmanship ... occupies the interest with practical expedients, ways and means, devices and contrivances of efficiency and economy, proficiency, creative work and technological mastery of facts. Much of the functional content of the instinct of workmanship is a proclivity for taking pains.... It shows at its best, both in the individual workman's technological efficiency and in the growth of technological proficiency and insight in the community at large, under circumstances of moderate exigence, where there is work in hand and more of it in sight, since it is initially a disposition to do the next thing and do it as well as may be. (Veblen, 1967: 320)

The "instinct of exploit," on the other hand, represented an inclination toward self-assertion, active emulation and aggression. This tendency in human nature flourished, Veblen argued, when industrial methods "have been developed to such a degree of efficiency as to leave a margin worth fighting for, above the subsistence of those engaged in getting a living" (Veblen, 1967: 71). While the drive for exploit first takes the form of piracy in search of booty and trophies, in modern societies it is expressed in the form of a struggle between men for the accumulation and possession of wealth.

...As industrial activity further displaces predatory activity in the community's everyday life ..., accumulated property more and more replaces trophies of predatory exploit as the conventional exponent of prepotence and success. With the growth of settled industry, therefore, the possession of wealth gains in relative importance and effectiveness as a customary basis of repute and esteem. Not that esteem ceases to be awarded on the basis of other, more direct evidence of prowess; not that successful predatory aggression or warlike exploit ceases to call out the approval and admiration of the crowd, or to stir the envy of the less successful competitors; but the opportunities for gaining distinction by means of this direct manifestation of superior force grow less available both in scope and frequency. At the same time opportunities for industrial aggression, and for accumulation of property by quasi-peaceable methods of nomadic industry, increase in scope and availability. And it is even more to the point that property now becomes the most easily recognized evidence of a reputable degree of success as distinguished from heroic or signal achievement. (Veblen, 1967: 78)

These two drives could be found in some form in all cultures, but in any particular culture they would be differentially favored in some way. Hence, these two "instincts" gave rise to what Veblen called "serviceable" and "diserviceable" institutions. "Serviceable" institutions are those which organize and control behaviors which service the welfare of the community and the well-being of individuals. "Diserviceable" institutions elevate self-interest over other forms of social behavior and are associated with "pecuniary" values and the personal accumulation of wealth and power as ends in themselves.

The Institutionalist Theory of Value

From this conceptual framework, Veblen developed a theory of economic value which was based in part on Adam Smith's distinction between value in use and value in exchange. The Institutionalists argued that all value was either what they called "pecuniary" and "ceremonial", on the one hand, or "technological" and "economic" on the other. By "pecuniary" values, they meant market prices,

values which were solely financial. Veblen called this form of value "pecuniary" because in his opinion it fundamentally involved "getting something for nothing" (Veblen, 1967: 82). These values were created by production in the service of fashion, prestige, and social status. In the business world, these values were also created by restricting output, misleading advertising, high pressure salesmanship, financial manipulations and arbitrage. Behavior dominated by the quest for pecuniary values implied the mobilization of economic resources strictly for the purpose of increasing financial flows and the accumulation of personal wealth without consideration of impacts of such actions on the welfare of the community at large.

"Technological" or "economic" values, on the other hand, are associated with the production of those goods and services which sustain and enhance human life and benefit the community as whole. For the Institutionalists "technological" values were superior to "pecuniary" values because they advanced human well-being in some objective demonstrable way which could be verified on scientific grounds. As a result the accumulation of technological values were a primary condition of economic advance and social progress.

Veblen viewed the American economy in his own time as geared primarily to the creation of these pecuniary values. He examined some of its most bizarre yet characteristic manifestations in consumer behavior in his famous study The Theory of the Leisure Class (1899). In this book, he explored fashion as a social institution, and made a number of important contributions to the theory of consumer behavior, especially his identification of the emulative aspects of consumer choice which he called "conspicuous consumption" and "prestige values."

In Theory of Business Enterprise (1904), Veblen looked at the pecuniary

economy from the production side. Veblen saw the operations of industry and enterprise as the product of a conflict between finance and production, exploit and workmanship, the business system and the industrial system, financiers and engineers. The success of modern business enterprise depended on what he called "sabotage," that is, organized, planned restriction, delay or hindrance. A strike is a form of sabotage. The word comes from the French sabot, which means "wooden shoe." It was coined by the French syndicalistes to describe tactics of passive resistance and obstruction. "Sabotage" became an effective form of creating pecuniary value with the rise of corporations and trade unions. Corporations especially could achieve sufficient market power to restrict output and administer prices to their own benefit.

... It should not be difficult to show that the common welfare in any community which is organized on the price system cannot be maintained without a salutary use of sabotage --- that is to say, such habitual recourse to delay and obstructions of industry and such restriction of output as will maintain prices at a reasonably profitable level and so guard against business depression.... Without some salutary restraint in the way of sabotage on the productive use of the available industrial plant and workmen, it is altogether unlikely that prices could be maintained at a reasonably profitable figure for any appreciable time. A businesslike control of the rate and volume of output is indispensable for keeping up a profitable market, and a profitable market is the first and unremitting condition of prosperity in any community whose industry is owned and managed by business men.... That is to say, in no such community can the industrial system be allowed to work at full capacity for any appreciable interval of time, on pain of business stagnation and consequent privation for all classes and conditions of men. The requirements of profitable business will not tolerate it. So the rate and volume of output must be adjusted to the needs of the market, not to the working capacity of the available resources, equipment and man-power, nor to the community's need for consumable goods. (Veblen, 1967: 435-36)

Planning and Technological Imperatives

The Institutionalist concern with planning stemmed from their theories about technology and social order in industrialized economies. Their thinking in this area was immensely influential. Lewis Mumford, for example, acknowledged that Veblen's ideas on this subject were in large part the inspiration for his famous book, Technics and Civilization (1934: 475).

Institutionalist economists believed that society would be better off if technological values guided economic behavior and if production for purposes of accumulating pecuniary values was subject to social control --- especially in vital sectors of the economy, such as agriculture, energy, finance, transportation (Ayres, 1944: 321). This, of course, implied a scheme of sectoral planning. The functions of planning would be to eliminate old habits and institutional practices, to set new standards of performance and output and to encourage new forms of investment and organization in accord with the developing requirements of new technologies and the production and consumption possibilities inherent in new technologies. Radically changed production forces could no more be organized under old institutions and mores as a large railroad, airline or aluminum company could be managed and operated by a family firm. The Institutionalists believed that public planning of this type was necessary because of the complex problems of coordination and interdependence which modern industrial economies faced. They further believed that public planning was feasible because technological values were knowable and quantifiable through scientific research.

Clarence Ayres and Rexford Tugwell, for example, viewed the lag between technological development and institutional arrangements as the prime cause of economic stagnation in the U.S. economy and attributed the problems of sick

industries such as agriculture, construction and energy to institutional barriers which prevented the full exploitation of the potential of new technologies. They viewed economic planning as an effort by organized social interests to use the vehicle of government --- especially legislation --- in combination with private innovation to make the institutional or "ceremonial" superstructure of the community compatible with the technological foundations of social life.

... It is this kind of problems --- problems resulting from institutional obstruction --- that gives rise to economic planning. The over-all problem of economic planning is one of institutional adjustment.... The progress of science and the industrial arts is continually altering the physical patterns of social life so as to produce situations contrary to the institutional practice of the community. (Ayres, 1952: 192)

"Institutional adjustment" however meant not only the reordering and restructuring of industries, and the introduction of new methods of management and forms of business organization; it also meant reform of the law regulating business as well as the modernization of public institutions like schools, courts, cities, and government itself. Sociologists call this process of reform "rationalization," a word which implies the organizing of human activity according to instrumentalist criteria.

The Institutionalists did not think of technology simply as a problem of tool selection. Veblen and Ayres --- who wrote at greater length on this question than did the others --- considered it a mistake to view technology in terms of simple instrumentalism -- i.e., the organization of material means to achieve human ends. Technology is not really the same as purposive rationality and cannot be thought of in terms of "tools" or "instruments," i.e., the use of material means for attaining individual human ends. Modern technology is quite

different --- it involves instead the organization and mobilization of human means to achieve material ends.

In its bearing on modern life and modern business, the 'machine process' means something more comprehensive and less external than a mere aggregate of mechanical appliances for the mediation of human labor.... The scope of the process is larger than the machine.... Wherever manual dexterity, the rule of thumb, and the fortuitous conjunctures of the seasons have been supplanted by a reasoned procedure on the basis of systematic knowledge of the forces employed, there the mechanical industry is to be found, even in the absence of intricate mechanical contrivances. It is a question of the character of the process rather a question of the complexity of the contrivances employed. (Veblen, 1904: 9-10). (Italics mine.)

The Institutionalists viewed modern technology largely in terms of patterns of culture and habits of thought. Technology invariably legislates the way we can act. To fully gain the material benefits from modern technologies, we must conform our actions and ways of thinking to the requirements of these technological systems; we must follow rules, timetables and standardized procedures. Veblen termed this "the cultural incidence of the machine process." By this he meant "the enforcement of precise mechanical measurements and adjustments and the reduction of all manner of things, purposes and acts, necessities, conveniences, and amenities of life, to standard units" (Veblen, 1904: 114). This same process of adaptation and conformity was true not only in industry where the discipline of the assembly line shaped the behavior and thinking of workers, but also in services, communications and the consumer sector where the technical requirements for the circulation of goods and the use of services also required standardization in thought and action.

... To make effective use of the modern system of communication in any or all of its ramifications (streets, railways, steamship lines, telephone, telegraph, postal service, etc.), men are required to adapt their needs and their motions to the exigencies of the process whereby

this civilized method of intercourse is carried into effect. The service is standardized, and therefore the use of it is standardized also. Schedules of time, place, and circumstance rule throughout. The scheme of everyday life must be arranged with a strict regard to the exigencies of the process whereby this range of human needs is served, if full advantage is to be taken of this system of intercourse.... For the population of the towns and cities, at least, much the same rule holds true of the distribution of consumable goods. So, also, amusements and diversions, much of the current amenities of life, are organized into a more or less sweeping process to which those would benefit by the advantages offered must adapt their schedule of wants and the disposition of their time and effort. (Veblen, 1904: 13)

The Institutionalists viewed modern technologies as being systemic in character; that is, the introduction of modern technology into any society and their widespread use were not simply a matter of personal choice or discretion but required complex and varied forms of collective action. Technology was a complex interconnection of devices and organizations which required conscious and continuous coordination. They defined technology as consisting of 1) physical apparatus (machines); 2) rules, standards, methods and procedures, i.e., "technics," which require training, expertise and knowledge; 3) and some type of organization --- a team, a factory, a bureaucracy, or an army. Modern technologies also depended on networks which combined teams, factories, and offices and which had to be operated and coordinated on a rational basis according to consistent procedures and standards.

Electric power is a perfect example of this systemic character of modern technology. Mass production of electricity made possible cheaper mechanical power for everyday use than was ever available before in human history. But to take advantage of this technology required the creation of a large pool of skilled engineers and dozens of research institutes, the mobilization of huge sums of capital for investment in generation and transmission facilities, and the development of a massive, complex interlinked distribution system to maintain adequate supplies of power for both business and residential consumers

over large geographical areas. To make widespread use of electric power in our economy also required the redesign of homes, offices, factories and farms to specific standards which had to be carefully tested and enforced to ensure both safety and efficiency. These organizational and institutional reforms were slow to come about and required public promotion and financing.

By the same token, the automobile and its requirement for massive and coordinated investment in roads and traffic management services also implied a fairly substantial process of public planning and investment. Today social adaptation to microelectronic, robotics and computers requires expanded investment in education and retraining of the labor force as well as restructuring of our communications infrastructure.

The Economy as a Machine

Aside from structural planning, the Institutionalists saw the increasing incidence of the "machine process" in industrial societies as ultimately giving rise to forms and procedures of coordinating economic decisions which could not be performed through market institutions. As a group they perceived a need for some type of national planning, although they argued a great deal about what type it should be. They all agreed on the necessity for a system of macroeconomic control as well as infrastructure planning; their most lasting contributions to the field of planning were in these areas.

The Institutionalists argued that the ultimate effect of the spread of what I have called systemic technologies was that the economic decision-making of firms and households became more interdependent and therefore machine-like in the degree of consistency and coherence of action that was necessary. This made

economic activity itself more amenable to models of mechanical action, such as input-output analysis.

... No one of the mechanical processes carried on by the use of a given outfit of appliances is independent of other processes going on elsewhere. Each draws upon and presupposes the proper working of many other processes of a similarly mechanical character. None of the processes in the mechanical industries is self-sufficing. Each follows some and precedes other processes in an endless sequence, into which each fits and to the requirements of which each must adapt its own working.... [Furthermore] each industrial unit, represented by a given industrial "plant," stands in close relationships of interdependence with other industrial processes going forward elsewhere, near or far away, from which it receives supplies --- materials, apparatus, and the like --- and to which it turns over its output of products and waste, or on which it depends for auxiliary work, such as transportation.... By virtue of this concatenation of processes the modern industrial system at large [itself] bears the character of a comprehensive, balanced mechanical process. In order to ensure an efficient working of this industrial process at large, the various constituent sub-processes must work in due coordination throughout the whole. Any degree of maladjustment in the interstitial coordinations of this industrial process at large in some degree hinders its working. (Veblen, 1904: 14)

As the degree of interdependence between industries and firms increased, a greater degree of coordination was required in order to facilitate these "interstitial adjustments" without engendering substantial social costs and economic strife. While individual businessmen might benefit from disturbances and imbalances in the industrial system, from all sorts of shortages and scarcities, the majority of workers and the business community as a whole clearly did not.

... The higher the degree of development reached by a given industrial community, the more comprehensive and urgent becomes this requirement of interstitial adjustment. And the more fully a given industry has taken on the character of a mechanical process, and the more extensively and closely it is correlated in its work with other industries that precede and follow it in the sequence of elaboration, the more urgent, other things equal, is the need of maintaining the proper working relations with these other industries, the greater is

the industrial detriment suffered from any derangement of the accustomed working relations, and the greater is the industrial gain to be derived from a close adaptation and a more facile method of readjustment in the event of a disturbanceThis mechanical concatenation of industrial processes makes for solidarity in the administration of any group of related industries, and more remotely it makes for solidarity in the management of the entire industrial traffic of the community. (Veblen, 1904: 14). (Italics mine.)

The Institutionalists saw planning and administrative "control" as an essential ingredient of modern forms of economic organization whether in the public or the private spheres. Institutionalists developed their theory around the indisputable fact that the organizational basis of modern industrial capitalism was less and less characterized by small firms allocating resources through market processes and according to strict market criteria and more by large bureaucratic enterprises which achieved economic success through various forms of "solidarity" and "cooperation" rather than through unfettered competition.

Veblen's greatest contribution to economic theory in this regard was his introduction of the factor of management --- administrative coordination --- as an element in the theory of the firm. Veblen was the first economist to recognize that management was an important factor of production in modern business enterprise, and nowhere was this more evident than in the rise of the large corporation. During his lifetime, technological innovation and market growth had made it more efficient and profitable in many industries for a few large bureaucratic enterprise to replace a multitude of small firms exchanging resources with each other. These new enterprises took over from the market the coordination and integration of the flow of goods and services all the way from the production of the raw materials through the several processes of production to the sale to the ultimate consumer. The market remained the generator of demand for goods and services, but large corporations decided upon the flows of goods and services that would be produced and how resources would be allocated

as part of that process. In his two books about corporations and the American economy --- The Theory of Business Enterprise (1904) and Absentee Ownership (1923) --- Veblen perceived correctly that administered production by means of large corporations would eventually spread throughout most of the economy, and that even where large firms did not control production directly, the decisions of countless small suppliers and distributors would nevertheless be coordinated by large corporations (Chandler, 1977: 25).

The growing complexity and interdependence of production and the efforts of large corporations to coordinate markets required increasingly complex means of making these so-called "interstitial adjustments." The result was "business planning," --- the use by corporations of cartels, syndicates, pools, oligopolistic market structures and trade associations as coordinating devices by which supply could be adjusted to existing demand. Its purpose was to prevent overproduction of particular goods, undue depression of prices and profits and overinvestment in productive facilities. The keynote of this form of economic planning was the protection of a fair return to business firms. However as John M. Clark concluded in the 1920's, a system of pure "business planning" by itself would create only an "economy of scarcity." It would limit national income below what the industrial system had the capacity to produce and therefore destabilize the economy. The adjustment of the supplies of particular goods to demand is one element which any planning apparatus had to contain; but it was not enough.

...In proportion as such control becomes general, the conception of fair return [eventually] loses the competitive standard of comparison by which it needs to be governed and becomes a matter of the preconceptions of business-minded men. It is thus likely to become not only too rigid, but higher than is consistent with the true requirements of a balanced and stable economy (1926: 461).

The technological approach to planning, on the other hand, grew out of the engineering side of industry rather than from the marketing or business side and was associated with the growth of "scientific management." This approach started with the expert planning of specific industrial operations, but as it evolved its practitioners became concerned with the planning of the entire production process as well as entire plants and eventually with planning the demand side of the economy as well.

...It was finally seen that the whole plant could not proceed according to a real plan because the market environment was not under control.... Thus the idea of planning proceeded in ever-widening circles until some advocates, at least, contemplated the planning of market conditions themselves. They thus reached a conception of planning in harmony with the idea of stabilized abundance, and in sharp contrast to the cartel idea of accepting the limitations of the existing market and limiting production in accordance with them. If such control of markets should prove at all compatible with a business system, it would be a more far-sighted way of protecting such profits as business can soundly earn, even though they might be far less than the business man's traditional idea of a fair return. (1926: 461)

This strategy of "stabilized abundance" implied a scheme of continuous economic planning in order that a program of government spending in the form of public works investment, subsidies, transfer payments, and grants would have the maximum effect on stabilizing demand and ensuring full employment. The Institutionalists were by no means socialists in this regard, although they were often accused of being so. Rather, they believed in public control of industry --- not public ownership or nationalization. They were adherents to what Daniel Bell has called the "convergence theory" of development --- namely, that all mature industrial economies, whatever their ideological orientation might be, and whatever might have been the cultural and institutional framework of their industrialization, ultimately tended toward some type of organized, explicit system of "social control" over their economies.

The Institutionalists conceived of planning as the application of scientific knowledge to problems of organization and control. Planning, in this sense was a generic activity and not solely a government function. Planning could be practiced by business, individuals, cities and nations alike. Although they were frequently misunderstood on this point, the Institutionalists as a whole were not strong believers in centralized planning. Rather they conceived of planning as a pluralistic and ultimately democratic process of decision-making in which the levels of control and cooperation were complex and diverse.

"Social control" is control exercised by or on behalf of the entity we call "society." But society never acts as a whole; it never even makes decisions as a unit, much less puts them into effect. The most definite and powerful agent of society is government, and in this country the municipal, state and federal governments between them exercise the formal, legal power of control in economic life. In internal matters, the question whether governmental control is truly social is mainly a question whether the government is truly representative of the various interest and groups in the nation. But social control is wider than this, as we have already seen. One's newspaper, one's trade union or professions association or chamber of commerce, one's neighbors, one's church, all exercise some measure of social control.... Since none of our actual organizations takes in everybody who is concerned, social control as we have it is always exercised on behalf of a particular group, something less than the sum of all the human beings who have vital interests at stake. In a broad sense, we may call it social control whenever the individual is forced or persuaded to act in the interest of any group of which he is a member, rather than in his own personal interest. In this sense the nation exercises social control, but so does the trade union. (Clark, 1926: 8)

The notion of "social control" did not necessarily mean coercion, although coercion might sometimes be involved. The term had few of the negative connotations we ascribe to it today. Instead it referred to the capacity of society to regulate itself according to desired principles and values. It referred as well to the institutional mechanisms by which the behavior of constituent groups is made to accord with their own acknowledged values and goals. By the term "social control of business," however, the Institutionalists

had in mind a more decidedly consciousness process of rule creation and regulation through government action.

...When we speak of the "social control of business," we must take some pains to avoid the implication that business exists first and is then controlled. Control is rather an integral part of business, without which it would not be business at all. The one implies the other, and the two have grown together. But it is worth while distinguishing three levels of control: the informal kind which economic groups developed out of their own needs and customs, the kind which courts can develop in the course of settling disputed cases as they arise, and the kind resulting from legislation which changes the rules for the future, with the definite purpose of bringing about some new result which the legislators foresee and desire. When people speak of the social control of business, "business" usually means the system as it develops under the first two classes of control, which are taken for granted; and "control" refers to control of the last class only. (Clark, 1926: 13)

The Institutionalists confronted the fundamental dilemma of planning in a liberal capitalist democracy: the conflict between control vs administration. By administration is meant the authority and power to direct the behavior of individuals and organizations. In a socialist system, where government administers production, government can naturally plan that which it alone administers. In a capitalist system, government must plan what it does not own or administer. To plan the operations of an economic system which remains basically private in its administration is much more complicated and difficult by comparison, and requires dependence on indirect controls -- particularly "strategic conditioning factors, bargaining and voluntary cooperation" (Clark, 1926: 468). The Institutionalists saw national planning in this light. It was in their minds a form of national economic management and control --- a way to bring into rough concert the whole gamut of private and public plans with the objective of furthering economic stability, economic growth, improved income distribution and industrial modernization.

Institutionalism in Perspective

Institutionalism in its own day was a kind of planning theory. It offered a much more robust theoretical perspective for examining the problem of planning and economic development than did the neo-classical tradition. It provided a far more powerful rationale for planning than mere rectification of market failures. The problem with the neo-classical tradition was that although it admitted that market prices were inadequate mechanisms for resource allocation in some instances, and that government intervention was justified either for the elimination or reduction of monopoly or for the rectification of the neglect of social rationality by the private enterprise system, such as the building of public schools, hospitals or roads; this professed sympathy for government intervention was essentially alien to the main body of its thought. The entire theoretical structure of neo-classical economics is antithetical to planning, even to the extent that it has ignored or treated as essentially aberrant all the various forms of private planning such as corporations, oligopolistic market structures, cartels, trade associations, trade cooperatives, labor unions etc., which have become common in the advanced industrial societies in the west. In this sense, the neo-classical tradition legitimates intervention, but not planning.

At the same time, while neo-classical economics might indicate when government intervention is appropriate, but it cannot provide any indication of what types of organized effort were required to make planned interventions effective substitutes for market mechanisms of allocation. Nor does it provide any understanding of how efficiency and equity norms can be translated into public policy. From the Institutionalist perspective, however the planning

process, whether in the private or public sectors, was ultimately a negotiation process for determining the shape of the future to be created given present circumstances and expectations about alternative prospects. The Institutionalists saw this process as embedded in structures of belief about fact and value (institutions). These structures reflect the power and goals of the formal and informal organizations (i.e., corporations, labor unions, households, churches, newspapers, schools, etc.) which constitute the basic decision-making units of society as well as the formal and informal superordinate organizations the purpose of which is the suppression of conflict and the harmonization of individual and group goals. These superordinate organizations thus give rise to the negotiating and coordinating processes we think of as public planning and policy formation.

Institutionalist economics was in this way superior to the neo-classical tradition because it viewed individuals as social persons, acting not just in their own interest but also as agents of others and members of organizations. Because the Institutional perspective was far more sensitive to the problems of management and control than conventional economics, it served early twentieth-century planners as a point of departure for thinking about the difficult questions of implementation, negotiation and public decision-making which are central to planning theory.

Institutionalist Economics also offers a much more fruitful point of departure for an approach to development planning in advanced societies because of the weight it places on the institutional and cultural dimensions of economic change. The Institutionalists had a profound appreciation for where culture took people, and the ways in which it shaped individual choice and the patterns of resource allocation. As a result they viewed economic development more as a matter of changing those structures of beliefs rather than a mere mechanical

rearranging the combinations of labor and capital available to firms.

The technological revolution represented by microelectronics, robotics and genetic engineering --- i.e., technologies based on information theory as opposed to those of the early twentieth century which were based on electromagnetism and thermodynamics --- is not simply a matter of new types of machines and plants replacing older ones. This new technology ultimately involves new ways of doing things, new ways of thinking, new forms of human interaction and new forms of private and public organization. The public policy issues of economic development and industrial policy in our own era will grow out of the social conflicts over the processes of cultural adaptation and displacement which the pressure of this immense technological revolution will surely generate.

BIBLIOGRAPHY

Ayres, Clarence. 1944. The Theory of Economics Progress. Chapel Hill, NC: University of North Carolina Press.

----- . 1952. The Industrial Economy. Boston, MA: Houghton Mifflin).

Baldwin, Sidney. 1968. Poverty and Politics: The Rise and Decline of the Farm Security Administration. Chapel Hill, NC: University of North Carolina Press.

Burns, Arthur E., ed. 1952. Wesley Clair Mitchell: the Economic Scientist. New York, NY: National Bureau of Economic Research.

Chandler, Alfred D., Jr. 1977. The Visible Hand: The Managerial Revolution in American Business. Cambridge, MA: Harvard University Press.

Clark, John Maurice. 1923. Studies in the Economics of Overhead Costs. Chicago: University of Chicago Press.

----- . 1926. Social Control of Business. New York, NY: McGraw-Hill (1939 edition).

----- . 1929. "Government Control of Industry," World Tomorrow. 12 (February): 74-76.

----- . 1934. Strategic Factors in Business Cycles. NY: National Bureau of Economic Research.

----- . 1935. Economics of Planning Public Works. National Planning Board. Washington D.C.: U.S. Government Printing Office.

----- . 1936. Preface to Social Economics: Essays on Economic Theory and Social Problems. New York, NY: Farrar and Rinehart.

----- . 1948. Alternative to Serfdom. New York, NY: Alfred A. Knopf.

----- . 1957. Economic Institutions and Human Welfare. New York, NY: Knopf.

Clawson, Marion. 1981. New Deal Planning: The National Resources Planning Board. Baltimore, MD: Johns Hopkins University Press.

Cuff, Robert. 1973. The War Industries Board. Toronto, Canada: T. Nelson.

Dorfman, Joseph. 1940. Thorstein Veblen and His America. New York, NY: Viking Press.

Fainsod, Merle, Lincoln Gordon and Joseph C. Palamountain, Jr. 1959. Government and the American Economy. New York, NY: W. W. Norton.

Daniel M. Fox, The Discovery of Abundance: Simon N. Patten and the Transformation of Social Theory. Ithaca, NY: Cornell University Press, 1967.

Galloway, Goerge B., et. al. 1941. Planning for America. NY: Holt.

Galbraith, John Kenneth. 1962. American Capitalism. Boston, MA: Houghton Mifflin.

----- . 1967. The New Industrial State. NY: Houghton Mifflin Co.

Graham, Otis L., Jr. 1976. Toward a Planned Society, From Roosevelt to Nixon. New York, NY: Oxford University Press.

Griffith, Ernest S. 1939. The Impasse of Democracy. NY: Harrison-Hilton, 1939.

Gruchy, Alan G. 1947. "The Social Economics of John M. Clark," in Alan G. Gruchy, ed., Modern Economic Thought: The American Contribution. New York, NY: Prentice-Hall, 337-402.

Hansen, Alvin. W. 1938. Full Recovery or Stagnation. NY: Norton.

Hawley, Ellis. W. 1969. The New Deal and the Problem of Monopoly, A Study in Economic Ambivalence. Princeton, NJ: Princeton University Press.

Hickman, Charles Addison. 1975. J. M. Clark. New York, NY: Columbia University Press.

Homan, Paul T. 1936. "New Deal in Retrospect," Political Science Quarterly. 91 (June): 181-84.

Kolko, Gabriel. 1976. Main Currents in Modern American History. NY: Harper & Row.

Lepawsky, Albert. 1976. "The Planning Apparatus: A Vignette of the New Deal." Journal of the American Institute of Planners 42 (1): 16-32.

----- . 1978. "Style and Substance in Contemporary Planning: The American New Deal's National Resources Planning Board as a Model." Plan Canda 18 (34): 153-87.

Mitchell, Wesley C. 1913. Business Cycles. Berkeley, CA: University of California Press.

----- . 1927. Business Cycles: The Problem and Its Setting. NY: National Bureau of Economic Research.

----- . 1936. What Veblen Taught. New York, NY: Viking Press.

----- . 1937. The Backward Art of Spending Money. New York, NY: MCGraw-Hill.

Mumford, Lewis. 1934. Technics and Civilization. NY: Harper & Row.

Patten, Simon N. 1907. The New Basis of Civilization. NY: MacMillan, 1907.

Sternsher, Bernard. 1964. Rexford Tugwell and the New Deal. New Brunswick, NJ: Rutgers University Press.

Sussman, Carl. 1980. Planning the Fourth Migration: The Neglected Vision of the Regional Planning Association of America. Cambridge, MA: M.I.T. Press.

Tugwell, Rexford G. 1933. The Industrial Discipline and the Governmental Arts. NY: Columbia University Press.

----- . 1940. "The Fourth Power," in Tugwell's Thoughts on Planning.

Veblen, Thorstein. 1899. The Theory of the Leisure Class: An Economic Study of Institutions. New York, NY: The Viking Press.

----- . 1904. The Theory of Business Enterprise. New York, NY: Charles Scribner and Sons.

----- . 1919. The Place of Science in Modern Civilization, and Other Essay. New York, NY: The Viking Press.

----- . 1921. The Engineers and the Price System. New York, NY: The Viking Press.

----- . 1923. Absentee Ownership and Business Enterprise in Recent Times: The Case of America. New York, NY: The Viking Press.

----- . 1967. The Portable Veblen, Max Lerner, ed. NY: The Viking Press.

Ware, Caroline F. and Gardiner Means. 1936. The Modern Economy in Action. NY: Harcourt Brace.