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ABSTRACT

For America to sustain a high standard of living and set aside the resources needed for national security, at least a decade of shoring up productive capacity is required--a period of reindustrialization. The United States has been underdeveloping, with too much consumption of goods and resources and too little investment in the national economic machinery. Two opposite economic approaches have been advanced to remedy this situation: supply-side economics and industrial policy. Supply-side economists favor tax reduction, with the deficit made up by taxes paid by a growing economy spurred by the free market place and private investment of capital; while the advocates of an industrial policy propose a government-led economic development program, with government bureaucracy to determine winning industries, subsidize and promote them, while allowing losers to close, with government help to retrain and relocate their workers. Between supply-side economics and industrial policy is the concept of reindustrialization. The suggested cure for the economic malaise is semitargeted: release resources to the private sector, but channel them to the infrastructure and capital goods sectors--away from either public or private consumption, resulting in a stronger productive capacity. Vocational education belongs to the agenda of reindustrialization primarily because of its concern with the size, composition, and quality of human capital. At the present time, however, vocational education is not supplying workers with needed "employability skills." Before it can contribute to reindustrialization, vocational education must determine why those skills are not being developed. (KC)

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REINDUSTRIALIZATION AND VOCATIONAL EDUCATION

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FOREWORD

To assist the National Center in its National Academy for Vocational Education conference on economic revitalization, Dr. Amitai Etzioni provided a paper that addresses the role of vocational education in our country's productivity growth. Dr. Etzioni, who is recognized as a leading spokesperson on the topic of the reindustrialization of America, presents the primary thesis that for America to maintain a high standard of living and provide for long-term national defense, an intensive, ten-year effort to increase productivity is necessary.

Dr. Etzioni is a sociologist and professor at George Washington University. His opinions on the need for and the components of the reindustrialization of America often appear in *The New York Times* and *The Washington Post*. Likewise, he makes frequent appearances on national television. He served as Senior Advisor in the White House from 1979-1980 and was guest scholar at the Brookings Institution from 1978-1979. From 1958-78, he was Professor, and for part of that time, Chairperson, of the Sociology Department at Columbia University. He has held several fellowships with such leading organizations as the Social Sciences Research Council, 1960-61; The Center for Advanced Study in the Social Sciences, 1965-66; and The Guggenheim Foundation, 1968-69. In 1968, Dr. Etzioni also founded the Center for Policy Research, a nonprofit corporation dedicated to public policy, and has served as director since its inception.

On behalf of the National Center for Research in Vocational Education and The Ohio State University, it is with pleasure that we make available the Occasional Paper by Dr. Amitai Etzioni entitled, "Reindustrialization and Vocational Education."

Robert E. Taylor
Executive Director
The National Center for
Research in Vocational Education

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REINDUSTRIALIZATION AND VOCATIONAL EDUCATION

For America to sustain a high standard of living and set aside the resources needed for national security, at least a decade of shoring up productive capacity is required. In essence, we are in need of a period of reindustrialization.

The American society has been underdeveloping. Decades of overconsumption and under-investment in the national economic machine have weakened America's productive capacity. The American industrial machine, with some important exceptions, is now run like the steel mills, where increases in labor settlements and dividend payouts vastly exceed increases in productivity. Coupled with relatively low investments in new plants, equipment, and research and development, as well as other factors, these strategies have resulted in an aging technology and an inability to compete with countries such as Japan and West Germany that rebuilt their plants after World War II.

In the face of a deteriorating infrastructure and capital goods base, a continued high level of consumption leads to an acceleration in the rate at which these resources are used up. A comparison could be made to a university endowment that is used up rapidly once expenditures exceed the income. This is what happened during our period of mass consumption. There was not enough plowed back into the underlying sectors (the infrastructure and capital goods sectors) to maintain and update them. In that sense, consumption was "excessive."

The terms "reindustrialization," "industrial policy," "revitalization," and "supply-side economics" are thrown around in the economic world at fast clip, sometimes as synonyms, sometimes as antonyms, and sometimes as both in the same breath. Under the title "Re-industrialization's Poor Record," a British executive, R. U. Grierson, attacks "industrial revitalization" on the basis of Britain's and others' bad experience in lavishing support on lame duck industries—a practice that represents a typical failing of "industrial policy." Joel S. Hirschhorn, of the U.S. Office of Technology Assessment, believes that to "reindustrialize America" a national industrial policy along the lines of the Marshall Plan is required. And so it goes.

The quest for some measure of semantic order, for making definitions and sticking to them, is not a pedantic expression of an academician's need for tidiness. It is a matter of fixing labels long enough to tell what is in each bottle and the differences among them. I will turn to a modest classification of these labels shortly, but first I must account for the issue the terms attempt to clarify.

At the core of the current discussion of economic policy are competing conceptions of both what ails the economy and what prescriptions are called for. Advocates of all the varying positions despair, albeit to differing degrees, of the conventional econometric models and Keynesian theories, and policies based on them. All agree that something more is amiss in the American economy than an unduly high reading on some economic indicators, such as inflation, unemployment, productivity growth, and savings. The problem is more severe than just another downturn of the age-old business cycle, soon to swing up again. All concur that this is not merely or even mainly a demand-driven (or OPEC-caused) inflation, to be curbed if not cured by trading x points of employment for y points of inflation. All agree that the foundation of the American economy has weakened and needs shoring up. There is not one counter-culture, no-growth advocate in the entire group.

Differing views of our economy are best seen as divergent conceptions concerning what the proper relations between the polity and the economy are, and where the levers for corrective measures lie. The positions taken do not directly parallel those taken by public officials, political parties, or the conservative-liberal dichotomy. They may be arranged, for convenience of presentation, on a continuum from radical conservative to moderate centrist to left liberal.

At the radical conservative end of the spectrum is the well-known position that what ails the economy is mainly an excessive level of politicization. This is reflected not only in an unduly high proportion of the GNP being used and allocated by the polity and excessive regulation of private decisions, but also in the revolution of entitlements, and attempts to deal with all social and many personal needs via the polity rather than the market. Economists Daniel Bell and Irving Kristol have articulated this position, as has Milton Friedman.

In this case, the remedy is to reduce the scope and intensity of the polity as much as possible, by releasing resources to the private sector, deregulating industry, and letting the market do its own wondrous things. Arthur Laffer and Kemp-Roth are the most radical of this school of thought; they hold that the revenue lost via monumental tax cuts will be restored by the higher tax-yield of a more productive economy. Other radical conservatives, such as Milton Friedman, are satisfied to cut back government expenditures and taxation drastically, without assuming a *proportionate* gain in the economy and tax revenues.

In terms of the radical-conservative stance, *where the levers for change are,* this approach is wholly nontargeted. It sees no need to direct, aim, or guide the public resources released to the private sector in any particular way. Indeed, *freeing* them to go wherever the market will take them is the kernel of the approach. This viewpoint is generally termed "supply-side economics," since it calls for letting private demand work its own way. The private economy responds to it by altering its capacity to supply what the demand seeks.

At the other end of the spectrum of positions, in the left-liberal category, is the notion that the polity's role should be intensified rather than reduced. Here the diagnosis is that in comparison with other highly successful economies (especially West Germany and Japan), American institutions provide insufficient guidance and support for the private economy. The market, it is implied or stated, has shown its inability to invest enough in new plants and equipment, to innovate and compete. Executives have grown risk-shy and dividend-happy. Steel mills, auto plants, and the textile and rubber industries are crumbling. The computer industry will soon face a unified government-orchestrated attack from Japan, while our industries' responses will be divided.

According to this left-liberal view, correctives are to be found in emulation of "Japan, Inc.," especially the Japanese Ministry of International Trade and Industry (MITI). In other words, the solution lies in government-guided collaborative efforts, in which business and labor pull together. Government bureaucrats and technologists will serve as the taskmasters and sources of analysis, tax incentives, capital, and informal (if not outright) protection. Recent attempts to turn around the United States auto and steel industries, following the suggestion of tripartite committees, are viewed as American dryruns of this philosophy. Beyond this, the advocates of this highly targeted approach see the U.S. Department of Commerce transformed into a Department of Trade and Development (or some other Americanized version of MITI), with a desk and a committee for each industry. The trade desk would analyze the industry assigned to it, for example, shoes. It would determine whether the industry is a winner or a loser, and whether it has a promising future in terms of productivity, exportability, technology/innovation, labor intensiveness, and other criteria.

The designated "winners" would be showered with government-provided subsidies, loans, loan guarantees, tax incentives, protection (as in a trigger price or import quotas), R&D write-offs, and other types of support. The losers would be buried or "sunsetted." The government then might provide the workers with "trade adjustment assistance" to help move them from parts of the country where the losers congregate (Detroit, Pittsburgh) to where the winners roam (the Sunbelt, coal states). Retraining for laid-off workers would also be provided.

Such a policy might be called "national planning," but as the term tends to raise fears of creeping socialism, most of its advocates avoid the label. Instead, the term "industrial policy" is in favor. It is quite appropriate, because the assumption is that the unit at which levers of policy are to take hold is not "the economy," or a major sector, but specific industries. Also, "industrial policy" is the label used for detailed government planning and direction of corporate efforts in other countries.

Critics of this philosophy raise three major questions:

1. Do we have the analytic capacity to determine correctly who will be a winner or who will be a loser? Does not our record suggest that we will misidentify industries and sink vast amounts of public resources in tomorrow's Edsels?
2. Will our polity, in which the government tends to be weak compared to business, labor, and local communities, be able to channel resources to those who merit them in terms of some rational analysis, rather than to those who have political clout?
3. Are both voters and leaders in the country willing to accept more politicization and less reliance on the marketplace?

At the center of the continuum, between supply-side economics on the right and industrial policy on the left, is the conception of reindustrialization, that what ails the country is public and private overconsumption and underinvestment, resulting in a weakened productive capacity.

Historically, industrialization is achieved in two main stages. First, an infrastructure is developed, in which nationwide transportation systems are set up (in the United States it was canals and railroads), cheap power, neither animal nor human, is made available (the mining of coal and drilling of oil wells), technological innovations are advanced (the steam engine, for example), modern communications systems are evolved (e.g., the telegraph), legal and financial institutions are developed (national currency, banks, stock exchanges); and the labor force is prepared (the rise of vocational education, the acculturation of immigrants).

While technological and financial factors tend to command the most attention in discussions of industrial development, the importance of human capital should not be underrated. Industrialization requires a labor force that is motivated, educated, and trained to staff factories, offices, financial institutions, and laboratories. In the United States, unlike many developing countries today, the very availability of persons was a major problem at the beginning of industrialization. Although some industrial workers came from farms, the large majority were immigrants—perhaps 35 million of them. Farm hands and immigrants alike had to be educated to acquire the outlook and values of an industrial society; beyond that, they had to learn the specific skills required by industry.

As the infrastructure develops, it becomes time for the second stage of industrialization: the capital goods sector emerges, which builds heavy-duty machinery and plants (steel mills and so on). This sector does not produce consumer goods, but rather the tools to produce them. When these two stages are well advanced, a society can mass-produce consumer goods and services.

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Signs of deferred maintenance and lack of adaptation to the new environment of expensive energy can now be seen in most of the elements that make up the infrastructure and capital goods sector of the United States. There is urgent need, for example, for improvement in the means of commodity transportation (railroads and bridges, for example); for energy development and conservation (without excessive commitment to any one path); for larger investment in research and development (especially applied R&D); and for improvement in the development of human capital (particularly in seeking to bring vocational training and actual jobs closer together). On the capital goods side, greater encouragement for investment is essential.

The suggested cure for the economic malaise is semitargeted: release resources to the private sector, but channel them to the infrastructure and capital goods sectors—away from either public or private consumption. For example, if we cut government revenues by $50 billion through across-the-board tax cuts, the funds released might well be used to spur private demand for consumer goods and services (gasoline, for instance); little rejuvenation of productive capacity would occur. On the other hand, if the resources released are guided to the productive sectors of the economy— not to specific industries—reindustrialization may take place. Thus, if tax revenues are "lost," not just through tax cuts for individuals, but in part by allowing accelerated depreciation for those who replace obsolete equipment or those who replace oil-based or energy-inefficient equipment with equipment which is energy efficient or uses alternative energy resources, the released resources will revitalize industrial development. There will be no determination of which specific industry will benefit. steel or textiles, rubber or rails. The polity will set the context; the market will set the target.

Similarly, providing tax incentives for greater R&D expenditures spurs on all such revitalization efforts, it does not require a government trade desk or tripartite committee to decide which R&D project is desirable. And, if workers are provided with productivity-based incentives so that they can share directly in renewed economic growth, Washington need not be involved in determining which group of workers is eligible for supplements, this is best done by the management and workers within each corporation.

Reindustrialization thus stands between supply-side economics and industrial policy; it is semi-targeted, and the context it seeks to advance is a stronger productive capacity.

Critics suggest that such reindustrialization will return the country to the nineteenth century and focus on "basic" rather than postindustrial, high-technology industries. The prefix "re-" does point to a return, but it should not be taken too literally. A return to a strong infrastructure and capital goods sector does not require a return to the same mix of specific industries. Thus, communications satellites and dataphones could do the job of the Pony Express and the Morse telegraph, and slurry pipelines might carry coal in the place of barges. The implied return is to higher investment and innovation in the productive sectors, not to anachronistic details.

On a second count, however, reindustrialization must plead guilty as charged. It does favor mitigating the criteria of "comparative advantage" with considerations of developmental economics, national security, and social responsiveness. Studies of developmental economics show that a measure of government provided incentives and support, even short-term import limitations, is often essential for developing a new industrial base. The same might hold true for renewing one. National security requires that we not grow so dependent on imported coal, steel, and shipbuilding that we are unable to withstand interruptions or boycotts. Social considerations urge us not to export all blue-collar work to third-world countries; we have plenty of our own unskilled labor. Moreover, social considerations, both ethical and practical, require that reindustrialization be carried out in a much more socially sensitive and responsive manner than America's first industrial development. The call for a national accord on our priorities for the next decade must cut both ways: the various social interest groups will have to moderate their demands; but at the same time, the business community will have to accept a wide sharing of the renewed wealth.

Vocational education belongs in the general agenda of reindustrialization, primarily because of its concern with the size, composition, and quality of human capital (or labor). The main elementary observation is often overlooked. Vocational education is but a step, albeit an important one, in the education/job sequence that starts early in life. Beginning in the family, the sequence continues with the general education part of schooling, and leads, after vocational education, to job training. This means, on one hand, that if education in the preceding institutions is inadequate or misdirected, those who enter vocational education will be, by definition, underprepared. This vastly increases the *remedial* demands on vocational education, strains its resources, and dilutes its outcomes. Similarly, if no, few, or chiefly unattractive jobs await the graduates of vocational education, it cannot be expected to provide the same kind of incentives for its students that are available when jobs and vocational education are well meshed.

Structurally, this implies that (a) vocational education is not best served when it is run in institutions dominated by general educators, especially if those educators are not supportive of job education, (b) more interaction is needed between those generating jobs and those who provide vocational education, and (c) it does *not* follow that places of employment should provide more vocational education; they might tend to be too focused on job *training* rather than a well-rounded education. This concept of switching the responsibility of training from schools to places of employment has a particularly negative implication for small businesses, who either cannot afford to offer training, or where employees must have a variety of skills instead of training limited to one specific area.

Probably the most urgent question is not, Who should run vocational education, in what institution, drawing on what public funds? The question is not even to what extent social priorities need to be balanced more effectively with industrial needs. Rather, we are asking, What is meant by deficient employability skills?

Employers tend to suggest that as many as 60 percent of the youths they employ are deficient in employability skills. While some feel that such complaints have been with us forever, others show data that indicate at least some deterioration in writing, computing, and other such basic skills over the last few decades.

The real question here is, What is the source of the problem? This is a question that needs answering before a comprehensive job education program, and within it, a strong vocational education program, can be designed.

If the limitations mentioned here are due to deficient teaching and insufficient exposure, remedial classes might help. If lack of IQ is the case, simplification of teaching might be needed. If psychic preparation, especially the ability to motivate oneself, concentrate, and command self-discipline, is the case, all the "preceding" institutions will have to participate in a true reform. While I personally see some signs that the main problems lie in the lack of psychic preparation, which hobbles job education in general, vocational education in particular, and ultimately employability, it would be ill advised to base a reindustrialization of job education on such an assumption unless it is substantiated. In other words, clarification of this issue is the most urgent task facing vocational education, and the treatment of this issue provides an essential element in dealing with all other problems.

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