

“PLASTIC LAND” IN THE POST-INDUSTRIAL ERA

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In a narrow sense, this paper has a dual focus – land and the settlement form generally referred to as the “city.” My specific concern is their relationship to each other and to the structural changes that define the transformation of the larger economy. Land at base is a production factor whose significance to economic activity is widely recognized. The city at base is a collection of land uses of relatively recent origin, resulting from the expanding capacity to produce a surplus and causing innumerable changes in the larger urban economy and society. In a broader sense, this paper will attempt to rescue both land and the city from the grips of a conventional wisdom that views their characteristics as fixed and their influence as static.

Particularly at a time of major structural change in the economy, both land and the city can be expected to be responsive to the changes that envelop them. In that sense, both are dynamic and even “plastic” in their influence, uses, and significance. Yet, both are at the center of political arrangements which mightily resist both the direction and the pace with which each is being redefined as we exit the industrial era and enter the post-industrial era. A wide variety of perceptions of land and regulations of its uses which have accumulated through the past half century are likely to be rendered irrelevant at best and harmful at worst for the decades ahead. Particularly foreboding are widely held conceptions of the “intrinsic” worth of cities as they are presently constituted and land parcels as they are presently used. Such conceptions breed rigidity and hamper the flexibility with which cities and patterns of land use adjust to the transfor-

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mation of the demography, technological capacities, and the larger economy.

Similarly, many national and subnational urban and economic policies reflect our inability to let go of increasingly inappropriate settlement arrangements and limit our ability to recognize the advantages of the alternatives that are slowly evolving in their stead. Accordingly, this paper seeks to deflate some of today's rampant romanticism as we witness the continuing transformation of the urban-industrial arrangements that have prevailed since the mid-19th century. As with all processes which look orderly and predictable, we easily forget the interrelatedness of change among the major sectors of our economy and society. This has been particularly true during the past half century of pervasive and persistent government intervention. The changing form and functions of our cities, like the "career" of varied land uses, reveal a flexibility best noted on an economic and technological timeline. And while politically seductive, it may be unwise to intervene indiscriminately in processes that continue to serve us remarkably well. Where results fall short of our expectations – as is perennially the case with the spatial and social distribution of disadvantage – our interventions might better flow from society's capacity to generate wealth rather than risk stifling wealth. Settlement and land use patterns were remarkably sensitive barometers of our gradual passage from an agrarian era into an industrial one. And it is highly likely that they will continue to serve that function as we exit the urban-industrial arrangements to which we have grown so accustomed.

A Half Century Into the Interventionist Era

While we may be unwitting and unwilling participants in the major structural changes that continuously shape and reshape the demographic and economic bases of our settlements and the spaces between them, the standards by which we evaluate these changes often illustrate powerful political and cultural influences. Our problems, along with the policies, programs, and regulations that constitute our responses to them, often tell us more about the social construction of reality than about the material conditions and circumstances themselves.

From a political economy perspective, we consider how tinkering with the orderly processes of market forces, political power, demographic change, technological development, and cultural beliefs might alter their outcomes. The growth of the money supply, budget discipline, reapportionment, mandatory retirement legislation, research and development subsidies, and public health programs are exam-

ples of sectors which are considered vulnerable to manipulation. Rejecting the “blind” outcomes of the “deus ex machina” workings of the economy, demography, and other social systems, we have increasingly attempted to harness the “machina” and specify the “deus” to meet our changing requirements.

The post-Depression era in the United States has been characterized above all by a growing confidence in our systemic understanding of the world around us which has inspired us to attempt to alter undesirable circumstances and outcomes. For this reason, we may well regard this past half century as the Interventionist Era. During this period few categorical groups of our population, areal portions of our territory, structural features of our economy, or processual features of our culture and its institutions have escaped efforts to intervene and so rewire the system more to our liking. Poverty, inflation, fiscal distress, low productivity, job discrimination, regional underdevelopment, and environmental degradation are a few of the conditions we have sought to alleviate through government intervention.

This has been especially true for “urban” circumstances. Over the past half century since the city first became the target of explicit public policy intervention,¹ we have witnessed countless efforts to improve the mesh between specific people and specific places. Urban renewal, manpower training, local economic development, annexation, metropolitan consolidation, growth controls, minimum wage legislation, and targeted procurement all represent efforts to gain some control over the form and function of our human settlements. Even the essentially local nature of zoning has been diminished by its universality, since 98 percent of all communities over 10,000 have some sort of zoning provision.² And yet, the changes in settlement form and function during the past five decades have probably occurred less because of than in spite of our concerted efforts. It is to these patterns of change and the ways in which we define and use land and space in urban America that we now turn.

“Plastic” Land and the “Plastic” City: The Dynamic Duo

Without a long-range perspective, one can be excused from even noticing, much less appreciating, the essential malleability of both

¹R. B. Miller, “The Federal Role in Cities: The New Deal Years,” *Commentary* (Washington, D.C.: National Council for Urban Economic Development, July 1979), p. 110.

²Peter Wolf, *Land In America: Its Value, Use and Control* (New York: Pantheon, 1981), p. 140.

land and the city. Together with labor and capital, the role of land as a production factor in an economic system is thought to be reasonably well understood. Yet, land is a far more complex and multifaceted concept than is often suggested by a simple review of the conspiracy of production factors which determine a society's capacity to produce wealth. Land may be seen as having a "career," defined by a sequence of roles and uses, definitions, and limitations on its use. Likewise, the city moves through a series of stages, each of which reflects the physical and political limitations placed on it during periods of expansion and growth.³ However, what appears as the succession of land uses and the lifestages of a city may be misleading. In fact, it is the larger economy that evolves via demographic and technological developments; changing land use and settlement patterns merely reflect these underlying forces and do not dictate basic economic change.⁴

Throughout most of history, land has been viewed as an *active* determinant of the fate of humans and their settlements. Some land could sustain an ecosystem that had room for man; other land could not. Land was valued and evaluated accordingly. It was that simple. Such a view long reinforced the valuation of land in terms of its natural endowments. As we left the agrarian era a century and a half ago – let us designate the Industrial Revolution as the beginning of that passage – the more dynamic aspects of land began to appear. As man mastered his environment, social and economic life were organized in greater size, density, scale, and permanence. New and different demands were made on land, and its determinative capacity was gradually blunted. Land has thus come to be seen as a more *passive* register of major economic and demographic changes and technological developments. This shift mirrors our nation's passage into and out of the industrial era. Land is continuously being redefined – its social significance and economic value the product of social creation rather than natural inheritance.

The Good Earth: From Sheaves to Spindletop

In the conventional three-dimensional sense, land is a stage across which are displayed the scales and densities of organized social and

³R. D. Norton, *City Life Cycles and American Urban Policy* (New York: Academic Press, 1979), chap. 1.

⁴D. A. Hicks, "National Urban Land Policy: Facing the Inevitability of City and Regional Evolution," in George Lefcoe, ed., *Urban Land Policy for the Reagan Years: The Message for State and Local Governments* (Lexington, Mass.: Lexington Books, forthcoming).

economic life. Time reveals the pace and patterns with which settlements, the economy, and demography are restructured and redistributed. Land is significant to these economic and settlement realignments because of its relationship to each of the various sectors of the national economy that have experienced differential rates of growth during the 20th century. It has been necessary to re-evaluate and redefine land as the economy has slowly evolved and passed into and out of the industrial era.

Prior to the Industrial Revolution, there was an intimate and obvious dependence on the “natural” features of land. Land was the dominant production factor in agriculture, mining, forestry, and even fishing. Food and fiber production along with livestock production depended directly on the basic composition of the soil and its exposure to sunlight, proximity to rainfall and water flow, and other natural factors that together determined the value of the land. For later activities, such as coal and other mining, a certain kind of land was necessary as well.

The primary sector defined land in terms of the presence of these endowments. Land was viewed as a storehouse of treasures such as topsoil above the ground and valuable resources underground. Many of these endowments were casually, if erroneously, judged to be of obvious and intrinsic worth. Over the long-term this primary sector in the nation’s economy shrank as it succeeded in assimilating a flurry of technological advances which accounted for high productivity along with the progressive substitution of capital for labor. That the agriculture sector grew smaller by using less labor is viewed as a sign of its success; the productive importance of this sector grew as its employment capacity shrank.⁵

As the Industrial Revolution took hold, it left an indelible imprint on the national economy. Perhaps more noticeable than its impact on the emerging secondary sector of the economy – including manufacturing and construction – was its impact on the primary sector itself. The storehouse conception of land became elaborated to include ingredients whose value was less intrinsic than invented. The view of land was expanded to embrace its role as a mystery box of ingredients whose value awaited “discovery” and complicity in some innovation or growing economic demand.

All kinds of minerals, including petroleum and its byproducts such as natural gas, were given a value in the wake of technological inno-

⁵Glenn V. Fuguitt and Paul R. Voss, *Growth and Change in Rural America* (Washington, D.C.: Urban Land Institute, 1979), p. 17.

vations in recovery and processing techniques, and transportation, as well as related economic changes that determined price. For those who would recognize it, land began to display a startling flexibility. The collective activities of people in organized social life began to create value in the extractive sector of the economy, and that value accrued to the land as well. Land long judged worthless by traditional criteria soared in value to reflect its newly discovered potential.

The enhanced value of land in the extractive sector registered earth-shattering developments occasioned in this sector as the industrial era emerged out of the agrarian era. Changing-scale economies and production techniques brought about largely by technological advances usurped biological attributes with geological ones. In the area of mineral extraction, such as uranium mining, and oil and natural gas production, the Industrial Revolution was underway a half century or more before it led to a re-evaluation of land's hidden resources.

The transformation of the primary sector of the economy just prior to and during the Industrial Revolution provides lessons about the plasticity of land. In particular, people began to see that land, in and of itself, has little or no intrinsic value; rather, its value reflects the value consumers attach to its potential uses. Agriculture has evolved to the point that it depends less on traditional conceptions of land and less on specific ingredients or attributes of the land. The gradual liberation of land from its physical, chemical, and even locational dimensions and endowments through such advances as irrigation, photosynthetic enhancement, fertilization, and hydroponics, to name a few, is an ongoing development. Yet, the initiatives of the Interventionist Era may well hinder and distort rather than facilitate this process.

Land as Location: Access, Proximity and the Industrial Sector

During the industrial era, the extraction of things of value from land, which defined the primary sector, was accompanied and soon surpassed by the fashioning of finished products from raw materials (i.e., manufacturing and construction), which is the essence of the secondary sector. The productive capacity of the national economy gradually left the farm and moved into the factory. The relevance and significance of land expanded from that of direct dependence on its inherent and ascribed physical, biological, and geological features to the more indirect and tenuous dimension of location or proximity to the natural resources required by industrial processes.

It is no accident, then, that the Northeast and North Central regions became the “industrial heartland.” Shipbuilding, automobile production, steel production, and ancillary industries such as glass and rubber production needed ready access primarily to specific raw materials and secondarily to each other. Proximity to iron ore, coal, water for industrial uses, and transportation of raw materials and finished products, as well as labor pools and mass markets, dictated the patterns of urbanization and city-building that unfolded hand-in-glove with these industries. The secondary sector further expanded the ways of determining land’s value. Increasingly, land could be evaluated in terms of its locational attributes – its capacity to offer proximity and access to related activities. As a result, the industrial hierarchy of settlements became more distinct and the division of labor among them better defined than any previous agrarian hierarchy of places was able to be or needed to be. All manner of technological developments allowed and required concentrations of population. *Urbanization – a revolution in patterns of land use – was a necessary accompaniment to industrialization given the technological era in which each unfolded.*

Yet, the superiority of these arrangements endured for less than a century. As we know, first population and later economic activity (e.g., jobs, capital, market demand) began to spread out from the compact arrangements of the industrial era.⁶ So, both the economy and the demography were freed not only from the land itself but even from specific locations. Certainly, not all economic activities or households joined in this outward trek. However, living and working in compact arrangements became more and more a matter of choice.

Land, Location and Place in the Service Sector: The Grip Loosens

In the post-World War II era, old-line manufacturing as a mainstay of the secondary sector continued to grow, but at an ever slower rate. The 20th-century hegemony of the secondary sector was slowly being overtaken by the rapid expansion of the service sector. During this time, manufacturing output nearly tripled, and even though 1980 saw approximately 20 percent of the labor force engaged in manufacturing, the postwar years saw *only a one-third increase in employment.*⁷ Further, the transformation of the larger national economy in the

⁶Brian J. L. Berry and Lester P. Silverman, eds., *Population Distribution and Public Policy* (Washington, D.C.: National Academy of Sciences, 1980).

⁷“America’s Restructured Economy,” *Business Week*, June 1, 1981, pp. 55–100.

context of an increasingly competitive international economy was accompanied by new employment growth centers, in a structural and spatial sense, as well as a geographical one. Since 1975, 90 percent of the new job growth has been in the service sector,⁸ while the bulk of new manufacturing growth has been in the South and West.

A wide variety of new manufacturing activities utilizing technological advances in production techniques, telecommunications, new materials, transportation, storage, and marketing, grew up in areas outside the industrial heartland such as the West, the South, and non-metropolitan areas across the nation. The subsectors which exhibited the greatest growth by midcentury were those which were derivative from more recent technological advances in such fields as aviation, electronics, computers and microprocessors, genetic engineering, and related "hi-tech" areas. This new science-based manufacturing activity required seedbeds for innovation such as centers of research and development at or near major universities; yet, the locational requirements for the critical manufacturing processes grew ever less demanding. Despite the rise of centers of high-tech manufacturing activity in such places as the Silicon Valley in California, the Silicon Prairie in north central Texas, and the Route 128 cluster outside Boston, no unified new industrial heartland emerged on the scale and structure of the older one. This cluster of secondary economy subsectors illustrated the increasing ability of production to take place nearly anywhere, not just in narrowly defined locations.

The relatively slow rise of the tertiary or service sector, together with the structural changes transforming the secondary sector, has resulted in economic activity which is ever less dependent not only on land itself, but also on location in terms of nearness. This is the first era that gives meaning to the growing recognition of the historical decline of the significance of location. Despite the continued importance of manufacturing and the industrial sector at large, the service sector has shown that it can serve as the backbone of local and extralocal economies rather than simply be an adjunct to the secondary sector.⁹

The service sector, which brings together a wide variety of enterprises, is also extremely adaptable to a wide variety of settings and locations. Indeed, the hallmark of the national economy during the past quarter of a century has been its increasing insensitivity to

⁸Lora S. Collins, "The Service Sector," *Across the Board*, November 1980, pp. 17-22.

⁹Larry Hirschhorn, "The Urban Crisis: A Post-Industrial Perspective," *Journal of Regional Science* vol. 9, no. 1 (1979): 109-118.

location in the traditional sense. Certainly, such activities as public (e.g., governmental activities) and quasipublic (e.g., associational activities) as well as the FIRE (i.e., finance, insurance, and real estate) services will continue to find that their “value” is often enhanced, if not actually created, by their location. Still, a wide variety of personal services, leisure-time enterprises, health, education, business, and professional activities have found that they thrive in symbiosis with, if relatively independent of, other economic activities regardless of their structural or spatial location.

In a very real sense no sector per se was immune from the restructuring that afflicted the larger economy; no industry was immune from the abrupt shocks (e.g., relative rise in energy prices) and more subtle technological changes (e.g., computer-assisted design and manufacturing) affecting countless production processes. The rise of the tertiary sector – and the inroads made by the quaternary sector (i.e., administration and control of information exchange) – signal the decline of the governing circumstances that favored the secondary sector and the rise of new conditions that shift advantage and opportunity to new components (e.g., science and hi-tech based) of older sectors as well as to entirely new sectors. The shifting constraints that govern production signal our exit from the industrial era as we have known it and our entry into whatever follows. This relaxation of spatial requirements promises to render traditional conceptions of land, and now location, nearly unrecognizable. The transformation within and between sectors of the national economy has untied and dissolved the bonds of location, just as it previously undid the ties to land itself.

The implications for our traditional arrangement of urban places are significant. Tied through the industrial era to specific locations and defended by political arrangements which lack spatial flexibility, our settlements face changes which have produced much pain and consternation. It is here that the interventionist impulse, also the product of the late industrial years, has been most notably evident. During the past quarter century it has served urban and economic policies whose direct or indirect purpose has been to restrain, if not redirect, the spatial implications of the restructuring economy and demography. As the industrial era, which defined so deliberately the forms and functions of her urban-industrial settlements, recedes, consequent and subsequent changes in both may be as necessary and unavoidable as they are difficult. Moreover, our nation’s passage into the post-industrial era may require painful redefinitions of the arrangements that are now made possible by the restructured economy and redistributed settlement patterns.

Throughout the Interventionist Era, we have seen deconcentration processes unfold on several spatial scales. Vexatious land-related issues have accumulated in their wake. Judged by increasingly outmoded and perhaps irrelevant standards, such matters as the growing amount of vacant land in central cities (approaching 20 to 25 percent in many metropolitan core cities)¹⁰ arouse policy concern, despite the fact that roughly 90 percent of the average metropolitan area is devoted to other than urban uses such as cropland, woodland, and pasture.¹¹ Likewise, pervasive support for single-use zoning is blind to the increased likelihood that the criterion of “incompatibility” which governed zoning for more than a half century may today sustain a form of land regulation that is poorly suited to the structural and spatial redevelopment possibilities of tomorrow’s metropolitan areas.

And again, lower density “sprawl” development and urban encroachment on rural lands invite incessant attacks despite the lack of compelling empirical evidence to support any one specific urban form. There is, however, growing support for higher density development regardless of how dispersed or compact a settlement may be.¹²

Sentiment and public policy guided by the thinking of the Interventionist Era aim to slow or reverse these undesirable developments. It is likely that much of this resistance originates from allegiance to comfortable, if outmoded, standards for assessing changes inside and outside the nation’s compact urban settlements. Following is an examination of a few of these developments.

The Rise of the “Plastic” City in 20th-Century America

Our city building and other types of settlement formation are due less to planners’ blueprints than the exigencies of basic economic

¹⁰Ray M. Northam, “Vacant Land in the American City,” *Land Economics* 47 (1971): 345–355. See also Subcommittee on the City, Committee on Banking, Finance and Urban Affairs, *Compact Cities: Energy Saving Strategies for the Eighties* (Washington, D.C.: Government Printing Office, 1980).

¹¹Wolf, p. 340.

¹²George Peterson and Worth Bateman, *Effects of Metropolitan Development Patterns: A Summary Report*, U.S. Department of Housing and Urban Development (Washington, D.C.: Government Printing Office, 1980). See also Dale Keyes, “The Influence of Energy on Future Patterns of Urban Development,” in A. P. Solomon, ed., *The Prospective City: Economic Population, Energy and Environmental Developments Shaping Our Cities and Suburbs* (Cambridge: MIT Press, 1980), chap. 10. And also J. D. Kasarda, “The Implications of Contemporary Redistribution Trends for National Urban Policy,” in D. A. Hicks and N. J. Glickman, eds., *Transition to the 21st Century: Prospects and Policies for Economic and Urban-Regional Transformation* (Greenwich, Conn.: JAI Press, forthcoming).

transformation, population redistribution, demographic shifts, and technological innovations. Once the general outlines have been established by these larger-scale dynamics, then the filigree has been attended to.

Urban America became a demographic reality when the industrial era was already a half century old. The census of 1920 revealed that a majority of Americans lived in urban places for the first time in our history. Within 30 years, by 1950, we had taken the next step in becoming a metropolitan nation: by midcentury half of the nation resided in the analytical, if not administrative, units we know as metro areas. This is more a comment on the pace and scale of our nation's integration than on the actual structure of our urban settlements. The majority of the nation still lived in small cities and towns; a much smaller proportion resided in the mammoth central cities located for the most part in the industrial heartland.

Gradually, the change in the national economy meant that the extractive primary sector – especially between the Civil War and the Great Depression – was making way for the emerging secondary sector. The nation's industrialization had proceeded apace with urbanization. The pillars of the nation's economy now stood in the industrial cities, to which the surplus population thronged from rural areas and abroad.

Even though our towns and cities grew in the six decades or so between the nation's founding and the onset of the Industrial Revolution, they were still largely economic extensions of the countryside, the anchor of our economy. These early urban areas are perhaps better understood as collection points for those who had become redundant to the agrarian economy as well as for those who wanted to acquire and re-enter the primary economy.

The gradual onset of the industrial era had shaped the nation's cities. As the nation left an essentially agrarian era, these cities became the staging areas for the next evolution in the national economy. The location of the major industrial cities reflected the way in which land itself, the backbone of the agrarian economy until the Civil War, was being redefined. Technology and the demand for it can create value in the land, rather than simply extract it through agriculture, mining, forestry and fishing, as is evidenced by our reliance during the 20th century on such resources as oil, natural gas, and other ingredients locked in the land for which a market had to evolve and for which demand and ultimately value itself had to be socially orchestrated.

So, the spatial arrangement of our industrial cities, regardless of their location either geographically or in an industrial hierarchy, depended on the requirements of the emerging industrial era. Rather

than places for surplus labor to retreat to, cities were sought out for the employment niches they offered in the emerging industrial economy. The industrial era was thus accompanied by great employment growth in the cities. On the farm productivity increases meant diminishing employment opportunities, while in the city factories opened them up. In turn, the form of these industrial cities was being dictated largely by the energy and linkage (i.e., transportation and communication) technologies of the 19th century. Steam power meant compact production arrangements; factories were generally clustered at the eventual core of these early cities. The linking technologies reinforced this compactness and further dictated the huddling of residential settlements within walking distance of these industrial core areas. Today, the physical properties and internal spatial arrangements of our aging industrial cities reflect the technological and economic regimes that spawned them.

Presently, we are so far removed from our agrarian moorings that we can hardly appreciate the basic malleability of the city. We have lost sight of the essential responsiveness of patterns of human settlement to the structure of the economy and the impact of technological advances. Few of us can appreciate that the city at base may be viewed as a complex of spatial arrangements for state-of-the-art industrial production which requires such varied factors as capital, labor, and land. The city, then, like the land upon which it is situated, is the physical expression of our economic and technological capacities to control time and space. And it may well be that the city means even more than this to some, but this added significance is derivative at best from its essential character.

The Multi-Scale Deconcentration of Urban-Industrial America

During the Interventionist Era (1930–1980), the spatial attributes of the nation's demography and economy were altered dramatically, as reflected in structural adjustments which dwarf the purposive (public policy) interventions of the era. Between 1960 and 1970 the nation's population increased 13.4 percent from 179.3 million to 203.3 million; between 1970 and 1980 the population rose to 229.5 million for an increase of 12.9 percent. Yet, it is the spatial distribution of this growth that has the greatest implications for the nation. If we consider how the nation's central cities fared over the past decade, we find that of the 56 cities with a population exceeding a quarter million, over half (30) lost total population. Moreover, while the proportion of whites declined in all 56 cities, the proportion of

black residents increased in all but three of these cities. By 1980, 71 percent of all blacks and 57 percent of all Hispanics were residents of the nation’s central cities.

Analyses of recent and long-term population trends show that the suburban shift will likely continue as the nation’s dominant deconcentration pattern through the 20th and into the 21st century. By 1980 nearly 45 percent of all Americans (100 million-plus) resided in suburban areas. Yet, the suburbanization trend does appear to be slowing somewhat as exurban growth surges. While the suburbs grew during the 1950s by 48.6 percent, and during the 1960s by 26.8 percent, in the past decade the rate of growth dropped to 18.2 percent.¹³ These suburban shifts are characterized by the growing spatial separation of economic disadvantage among both black and white households. Table 1 shows that during the past two decades, while the percentage of poor white families has been increasing slightly in the central cities and moderately in the suburbs, the percentage of poor black families has been increasing markedly within the central cities and slightly in the suburbs. During the past decade, of all black families in poverty, over half are in central cities.

At the next largest spatial scale, we encounter metropolitan America where nearly three-quarters (169.4 million) of the nation’s pop-

TABLE 1
PERCENT DISTRIBUTION OF WHITE AND BLACK FAMILIES IN
POVERTY, SELECTED YEARS

	White Families				Black Families			
	1959	1969	1974	1979	1959	1969	1975	1978
Central cities	23.0	28.6	27.4	28.2	38.4	43.4	54.2	57.9
Suburbs	18.7	24.4	28.4	28.5	11.9	13.1	12.1	13.2
Nonmetropolitan	58.3	47.2	44.4	43.3	49.6	43.5	33.7	28.9
TOTAL*	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*All columns will not equal 100.0 due to rounding.

SOURCE: U.S. Bureau of the Census, *Current Population Reports*, Series P-23, No. 80 (1978).

NOTE: Table 1 appeared as Table 8 in National Research Council, *Critical Issues for National Urban Policy: A Reconnaissance and Agenda for Further Study*, First Annual Report of the Committee on National Urban Policy (Washington, D.C.: National Academy Press, 1982), p. 36.

¹³“Suburbs’ Growth Slowing, Analysis of Census Shows,” *Dallas Morning News*, April 10, 1982.

ulation lives. Metropolitan counties comprise just over 15 percent of the nation's 2.3 billion acres in land area, though only 63 million acres (about 3 percent of the U.S. total) are considered inhabited.¹⁴ Approximately 90 percent of all growth was in metro areas between 1950 and 1970.¹⁵ By 1974 this had dropped to 60 percent.

Since the mid-1970s, the growth rate of nonmetropolitan America has exceeded that of metropolitan America. Preliminary figures from the Department of Agriculture and the Census Bureau indicate that population growth in nonmetropolitan areas between 1970 and 1980 was 12.4 percent in the Northeast, 7.8 percent in the North Central region, 17.1 percent in the South and 31.8 percent in the West. Despite the recent eclipse of metro growth rates by nonmetro rates, 35 new metro areas have been designated in the past decade, bringing the total to 318. Ironically, the number of metro areas is increasing even as the forces that account for their past dominance continue to dissipate. The nation's population is gravitating to ever smaller places (less than 2,500), which are found to be growing the fastest, and somewhat larger places are now meeting the minimal criteria to become metro areas.

In past decades, absolute population loss has begun to be felt on the scale of entire metro areas. Since 1970, 29 metro areas, all but one located in the Northeast or North Central regions of the country, registered population declines. The fastest growing SMSAs are all located in the South or the West.

Accompanying these patterns of multi-scale population redistribution have been more significant patterns of economic restructuring. As Table 2 indicates, in the three decades up to 1990 the nation's employment structure will change significantly. Within the context of expanding national employment due to the baby boom of the 1940s–50s and women reentering the labor force, the decade of the 1970s actually witnessed reduced employment in agriculture, manufacturing and contract construction, transportation, communication, and public utilities, and private household services. These employment figures do not necessarily tell us anything about the productivity within those sectors, though we know that overall productivity gains during the 1970s were marginal at best (0.6 percent average increase for 1975–79 – the lowest of all advanced nations).¹⁶

¹⁴Wolf, p. 336.

¹⁵Fuguitt and Voss, p. 3.

¹⁶U.S. Congress, Office of Technology Assessment, *U.S. Industrial Competitiveness: A Comparison of Steel, Electronics and Automobiles* (Washington, D.C.: Government Printing Office, 1981), p. 5. See also President's Commission for a National Agenda for

TABLE 2
TOTAL EMPLOYMENT BY MAJOR SECTORS, ACTUAL AND PROJECTED, SELECTED YEARS, 1959-1990 (LEVEL IN THOUSANDS)

Industry Sector	Level						
	1959	1968	1972	1977	1980	1985	1990
Total civilian employment ^a	67,563	79,836	88,408	93,715	101,761	111,851	118,615
Government ^b	8,083	11,846	13,738	15,189	15,868	16,865	17,907
Total Private	59,450	67,990	74,670	78,526	85,893	94,996	101,106
Agriculture	5,491	3,663	3,206	2,922	2,974	2,922	2,634
Nonagriculture	53,989	64,327	71,464	75,604	82,919	92,064	96,474
Mining	765	634	677	867	1,002	1,055	1,072
Contract construction	3,680	3,948	4,766	4,672	5,067	5,556	5,748
Manufacturing	17,001	20,038	20,352	19,844	21,492	23,014	23,882
Durable goods	9,577	11,792	12,029	11,671	12,929	14,098	14,692
Nondurable goods	7,424	8,246	8,232	8,173	8,563	8,915	9,189
Transportation, communication, and public utilities	4,241	4,521	4,867	4,838	5,212	5,516	5,658
Transportation	2,743	2,840	2,919	2,876	3,098	3,270	3,332
Communication	874	1,017	1,207	1,203	1,304	1,391	1,473
Public utilities	624	664	741	759	809	856	853
Wholesale and retail sale	13,758	16,329	19,026	20,906	23,351	25,907	27,370
Wholesale	3,527	4,118	4,688	4,991	5,511	5,834	5,856
Retail	10,231	12,211	14,338	15,917	17,840	20,073	21,482

TABLE 2 (cont.)
TOTAL EMPLOYMENT BY MAJOR SECTORS, ACTUAL AND PROJECTED, SELECTED YEARS, 1959-1990 (LEVEL IN THOUSANDS)

Industry Sector	Level						
	1959	1968	1972	1977	1980	1985	1990
Finance, insurance, and real estate	2,882	3,672	4,433	4,888	5,312	6,113	6,695
Other services	9,088	12,748	15,254	17,674	19,861	23,457	26,742
Private households	2,574	2,437	2,089	1,913	1,602	1,447	1,307

Industry Sector	Average Annual Rate of Change					
	1959-68	1968-73	1973-77	1977-80	1980-85	1985-90
Total civilian employment ^c	1.9	2.1	1.5	2.8	1.9	1.2
Government ^b	4.3	3.0	2.5	1.5	1.2	.8
Total private	1.5	1.9	1.3	3.0	2.0	1.3
Agriculture	-4.4	-2.6	-2.3	.6	-.4	-2.1
Nonagriculture	2.0	2.1	1.4	3.1	2.1	1.4
Mining	-2.1	1.3	6.4	5.0	1.0	.3
Contract construction	.8	3.8	-.5	2.9	1.8	.7
Manufacturing	1.8	-.3	-.6	2.7	1.4	.7
Durable goods	2.3	.4	-.8	3.5	1.7	.8
Nondurable goods	1.2	.2	-.5	1.6	.8	.6

Transportation, communication, and public utilities	.7	1.5	-.1	2.5	1.1	.5
Transportation	.4	.6	-.4	2.5	1.1	.4
Communication	1.7	3.5	-.1	2.7	1.3	1.2
Public utilities	.7	2.2	.6	2.2	1.1	-.1
Wholesale and retail sale	1.9	3.1	2.4	3.8	2.1	1.1
Wholesale	1.7	2.6	1.6	3.4	1.1	.2
Retail	2.0	3.3	2.6	3.9	2.4	1.4
Finance, insurance, and real estate	2.7	3.8	2.5	2.8	2.8	1.8
Other services	3.8	3.7	3.7	4.0	3.4	2.7
Private households	.6	-3.0	-2.2	-5.7	-2.0	-2.0

^aEmployment is on jobs concept and includes wage and salary workers, the self-employed, unpaid family workers, and private household workers.

^bGovernment employment used in this table is based on BLS concepts. The figure includes government enterprise employment.

SOURCE: Valerie A. Personick, "Industry Output and Employment: BLS Projections to 1990," *Monthly Labor Review*, BLS Bulletin 2030, P-32 (April 1979).

NOTE: Table 2 appeared as Table 7 in National Research Council, *Critical Issues for National Urban Policy: A Reconnaissance and Agenda for Further Study*, First Annual Report of the Committee on National Urban Policy (Washington, D.C.: National Academy Press, 1982), pp. 27-28.

Employment growth in the service sector has generally led the way since World War II while nonservice sector employment has declined relatively. Today two-thirds of the labor force is in the service sector, while the proportion in manufacturing is down to 22 percent.¹⁷ Given the spatial implications of these restructurings, the consequences for the economies of our larger urban areas are particularly important. Between 1972 and 1977 the central city's share of metropolitan manufacturing declined in 44 of the 56 central cities larger than 250,000.¹⁸ This is, of course, just an extension of a 20th century trend. A recent study by the Urban Institute indicates that since 1900 the central cities' share of metropolitan manufacturing has been declining.¹⁹ Indeed, between 1970–75, for metropolitan areas larger than a million, nearly one in ten manufacturing jobs were lost.²⁰

Over the same five-year span, the retailing sector of the central city has also diminished relative to the rest of the metropolitan area in 47 of the 56 areas. These figures help document a virtual revolution in retailing over the past 30 years. The evolution of suburban shopping malls, followed by regional shopping malls at some distance from the CBDs of older central cities, has been remarkable. In 1950, there were 100 shopping centers in the nation. By 1980 it is estimated that there were over 20,000, with nearly half of these added in the last decade.²¹ Today, of all the receipts generated in the nation's two dozen largest metropolitan areas, the proportion generated by shop-

the Eighties, *The American Economy: Employment, Productivity, and Inflation in the Eighties*, Report of the Panel on The American Economy (Washington, D.C.: Government Printing Office, 1981), pp. 19–20.

¹⁷National Research Council, *Critical Issues for National Urban Policy: A Reconnaissance and Agenda for Further Study* (Washington, D.C.: National Academy Press, 1981), p. 24.

¹⁸U.S. Bureau of Census, "1980 Census Population for Cities of 100,000 and Over by Rank Order," news release (Washington, D.C.: Government Printing Office, June 1981). Detailed figures available on request.

¹⁹Charlotte Fremon, "The Occupational Patterns in Urban Employment Change: 1965–1967," Urban Institute working paper, Washington, D.C., January 1970, p. 11. See also Bennett Harrison, *Urban Economic Development: Suburbanization, Minority Opportunity, and the Condition of the Central City* (Washington, D.C.: The Urban Institute, 1974). And A. P. Solomon, "The Emerging Metropolis," in A. P. Solomon, *The Prospective City*, chap. 1.

²⁰Harvey A. Garn and Larry C. Ledabur, "The Economic Performance and Prospects of Cities," in A. P. Solomon, *The Prospective City*, p. 233. See also J. Thomas Black, "The Changing Economic Role of Central Cities and Suburbs," in A. P. Solomon, *The Prospective City*, chap. 4. And *The President's National Urban Policy Report, 1980* (Washington, D.C.: Government Printing Office, 1980), pp. 8–3 ff.

²¹"Shopping Center Census," *Shopping Center World*, January 1977, pp. 15–23.

ing centers exceeds that generated by central business districts for the first time – so dramatic has been the deconcentration of retailing arrangements in recent years.

The growth of the service sector has been especially important for local urban economies, just as it has been for the larger national economy. Service sector growth has followed the spread of population to suburban areas and beyond; still, in 14 central cities the absolute proportion of metropolitan service sector growth in the central cities increased between 1972 and 1977. This subtrend is a part of the more dominant trend of service sector expansion throughout the national economy at all spatial scales beyond the central city.

While the real significance of the expansion of metropolitan economies can be seen at the multistate region level, a number of notable consequences occur at this next larger spatial scale. As Table 3 indicates, the nation’s major regions have experienced uneven growth rates since 1960 which, along with a spatially shifting economy, has narrowed the historical gap among regions in terms of jobs, per capita income, and a variety of other indicators of economic functioning. The spatial pattern of responses from the political economy likewise reflects this convergence trend, as Table 4 indicates.

TABLE 3
POPULATION OF THE UNITED STATES BY REGION, 1960, 1970,
AND 1978
(NUMBERS IN THOUSANDS)

Region	1960	1970	1978	Percent Change	
				1960–1970	1970–1978
United States	179,311	203,305	218,059	13.4	7.3
Northeast	44,678	49,061	49,081	9.8	0.0
North					
Central	51,619	56,593	58,251	9.6	2.9
South	54,961	62,812	70,626	14.3	12.4
West	28,053	34,839	40,100	24.2	15.1

SOURCES: U.S. Bureau of the Census, *Data Book for the White House Conference on Balanced National and Economic Development*, January 1978, Table I-8; and U.S. Bureau of the Census, “Estimates of the Population of States, by Age: July 1, 1977 and 1978,” *Current Population Reports*, Series P-25, No. 794, Table I.

NOTE: This table appeared as Table 1-1 in *The President’s National Urban Policy Report* (Washington, D.C.: Government Printing Office, 1980), pp. 1–2.

TABLE 4
POLITICAL ECONOMY REFLECTS MARKET ECONOMY CONVERGENCE

Federal Funds Flow Shifts to the Frostbelt

The first four columns, for fiscal 1979, show: (1) federal spending per person; (2) the federal tax burden per person, with the federal deficit distributed as an added tax; (3) the amount of money received for each tax dollar; and (4) total funds that flowed in or out. In the fifth and sixth columns are comparisons from fiscal 1975.

	Fiscal 1979				Fiscal 1975	
	Spending per person	Taxes per person	Spending taxes ratio	Dollar flow (in millions)	Spending taxes ratio	Dollar flow (in millions)
Northeast	\$2,058	\$2,200	\$0.94	-\$6,969	\$0.86	-\$10,776
New England	2,339	2,145	1.09	2,390	0.96	-762
Maine	2,063	1,560	1.32	552	1.12	139
New Hampshire	1,879	2,034	0.92	-137	1.00	1
Vermont	1,862	1,595	1.17	132	1.17	91
Massachusetts	2,377	2,100	1.13	1,593	0.95	-462
Rhode Island	2,074	1,991	1.04	77	0.92	-107
Connecticut	2,654	2,598	1.02	174	0.92	-425
Mid-Atlantic	1,964	2,219	0.88	-9,359	0.83	-10,013
New York	2,103	2,201	0.96	-1,740	0.89	-3,392
New Jersey	1,722	2,485	0.71	-5,595	0.66	-4,436
Pennsylvania	1,905	2,078	0.92	-2,024	0.87	-2,185
Midwest	1,738	2,202	0.79	-27,068	0.76	-20,074
Great Lakes	1,609	2,275	0.71	-27,483	0.70	-18,618
Ohio	1,545	2,172	0.71	-6,736	0.70	-4,634
Indiana	1,469	2,098	0.70	-3,398	0.73	-2,036

Illinois	1,851	2,537	0.73	-7,707	0.72	-5,290
Michigan	1,556	2,346	0.66	-7,272	0.65	-4,971
Wisconsin	1,448	1,950	0.74	-2,370	0.73	-1,686
Great Plains	2,048	2,023	1.01	415	0.94	-1,456
Minnesota	1,801	2,119	0.85	-1,289	0.83	-934
Iowa	1,602	2,104	0.76	-1,455	0.69	-1,249
Missouri	2,450	1,958	1.25	2,395	1.10	657
Kansas	1,997	2,089	0.96	-218	0.98	-78
Nebraska	2,103	1,998	1.05	165	0.84	-351
South Dakota	2,249	1,611	1.40	439	1.29	215
North Dakota	2,405	1,830	1.31	377	1.35	283
South	2,090	1,864	1.12	16,003	1.14	11,522
South Atlantic	2,188	1,908	1.15	9,596	1.12	4,986
Delaware	1,768	2,384	0.74	-359	0.66	347
Maryland	2,808	2,375	1.18	1,797	1.20	1,299
Virginia	2,901	2,056	1.41	4,395	1.34	-2,257
West Virginia	1,887	1,699	1.11	353	1.21	410
North Carolina	1,612	1,658	0.97	-262	0.98	-115
South Carolina	1,834	1,577	1.16	753	1.19	561
Georgia	1,901	1,708	1.11	985	1.16	912
Florida	2,217	1,999	1.11	1,934	1.00	9
South Central	1,997	1,822	1.10	6,407	1.17	6,536
Kentucky	1,872	1,678	1.12	683	1.21	790
Tennessee	2,378	1,711	1.39	2,925	1.13	627
Alabama	1,968	1,595	1.23	1,406	1.34	1,255
Mississippi	2,073	1,314	1.58	1,845	1.76	1,621
Louisiana	1,866	1,773	1.05	377	1.16	652
Arkansas	1,815	1,464	1.24	766	1.24	492

TABLE 4 (cont.)

POLITICAL ECONOMY REFLECTS MARKET ECONOMY CONVERGENCE

	Fiscal 1979				Fiscal 1975	
	Spending per person	Taxes per person	Spending taxes ratio	Dollar flow (in millions)	Spending taxes ratio	Dollar flow (in millions)
Oklahoma	2,037	1,871	1.09	481	1.22	711
Texas	1,960	2,116	0.93	-2,075	1.03	388
West	2,348	2,240	1.05	4,403	1.20	10,639
Mountain	2,315	1,928	1.20	4,129	1.30	3,631
Montana	2,231	1,883	1.19	274	1.28	246
Idaho	2,031	1,686	1.20	312	1.25	223
Wyoming	2,119	2,364	0.90	-110	1.21	102
Colorado	2,240	2,119	1.06	337	1.20	704
Utah	2,084	1,624	1.28	629	1.35	455
Nevada	2,383	2,570	0.93	-131	0.96	-40
Arizona	2,261	1,869	1.21	960	1.31	853
New Mexico	3,138	1,640	1.91	1,859	1.93	1,090
Pacific	2,359	2,350	1.00	274	1.17	7,008
California	2,315	2,366	0.98	-1,165	1.11	3,684
Oregon	1,911	2,178	0.88	-676	0.94	-202
Washington	2,527	2,297	1.10	901	1.40	2,008
Alaska	4,759	3,304	1.44	591	2.44	776
Hawaii	2,906	2,224	1.30	624	1.58	741
Washington, D.C.	23,529	2,750	8.56	13,631	7.67	8,690
Total United States	\$2,101	\$2,101	\$1.00	\$0	\$1.00	\$0

SOURCE: *National Journal*, February 7, 1981, p. 234.

To Ride or To Rule – Confusion in the Interventionist Era

As we have seen, the dominant dynamics of the Interventionist Era have been the dispersion of population, the deconcentration of economic activity, and the diffusion of technological innovation. While the immediate impact has been to decentralize population and economic activity, the secondary effects of growth and the clustering of people and jobs in adjacent and remote settings has also been noted. Significantly, the ubiquitous spatial impacts of explicit public policies in all policy domains have been seized upon as significant shapers of these patterns of deconcentration. As stated in the President's National Urban Policy Report for 1978, “The most powerful direct action that has contributed to metropolitan decentralization and central-city decline, the opening up of nonmetropolitan America, and the regional dispersion of population and economic activity has been the construction of the interstate highway system.”²² Additional factors are the anti-urban impacts of defense contracts and spending, subsidies for infrastructure construction (e.g., water and sewer construction) in peripheral areas, and the pattern of other federal grants and subsidies.

Yet, the irony is that spatial impacts of public policy can never be avoided. Further, it is reasonable to note that the explicit goals of the several national public policies cited above, which are judged to have had such determinative spatial impacts, had other than explicit spatial goals. The issue then becomes whether or not public policies should be crafted and implemented whose explicit and primary purpose is to have a spatial, as distinct from some other kind of structural, impact. Improved transportation, housing, and defense only inadvertently and secondarily required that public dollars subsidize growth and vitality in locations away from central cities and in regions outside the industrial heartland. Besides, recent closer examination shows that these eventual impacts of public policy are probably both grossly overestimated and misunderstood. For instance, Briggs has shown that interstate highway construction has had little systematic impact on the resurgence of growth in nonmetropolitan America.²³ Nonmetro growth is due much more to the investment of value and attention in amenity-rich areas which lie at the periphery of metropolitan areas

²²U.S. Department of Housing and Urban Development, *President's National Urban Policy Report* (Washington, D.C.: Government Printing Office, 1978).

²³Ronald Briggs, *The Impact of the Interstate Highway System on Non-metropolitan Growth* (Washington, D.C.: U.S. Department of Transportation, 1980).

in *all* regions of the country. Likewise, Rees and others have demonstrated that while defense spending has proceeded through a concentration of federal funds in the South and the West,²⁴ this is only true of primary contracting. A spatial analysis of subcontracting patterns reveals that the bulk of these funds flow back quickly into the relatively well diversified economies of the Northeast and North Central regions.

New Arrangements for Post-Industrial Urban America

The premier dynamic evident in the nation's economy and demography throughout the 20th century has been a multiscale deconcentration. Aided and abetted by the largely inadvertent and unintended impacts of the political economy in a variety of policy domains, the driving force behind these dynamics has been a changing market economy. Also important have been the technological advancements that have liberated the economy from the land, and households and firms from specific locations.

It is important to acknowledge that while this multiscale deconcentration has been proceeding at higher rates throughout our nation-building process, suburbanization is just now a century old, and nonmetropolitan resurgence less than a decade old. So, it has only been in the last few years that deconcentration has proceeded simultaneously across several spatial scales. Of more significance to the policy community, however, is the fact that the multiple impacts of these trends have been most visible in the last half of the Interventionist Era.

The movement to the periphery proceeded, for the most part not because it had to, but because it could. Maturing industrial processes which depended on lower land and labor costs and tax burdens spread out within and beyond metropolitan-scale settings in the industrial heartland, and later beyond to other regions. The high industrial dispersion of the past decade was often the *de facto* result of capital mobility tied to the secondary expansion of existing firms to new locations and the birth of indigenous firms at the periphery, rather than to actual physical relocation. Further, while these dynamics will no doubt continue to operate in the years ahead, evidence

²⁴John Rees, "Government Policy and Industrial Location in the United States," *State and Local Finance: Adjustments in a Changing Economy*, vol. 7, Special Study on Economic Change of the Joint Economic Committee (Washington, D.C.: Government Printing Office, 1980). See also, "World Market for Commercial Airplanes: The New Competitive Environment," The Boeing Company, February 1981.

suggests that as convergence within and between metro areas and multistate regions continues, the factors underlying this convergence are slowly and predictably dissipating. Table 5 illustrates the trend toward narrowing wage differentials between New York City and Dallas-Ft. Worth and Houston – a fact often used to explain the South’s “business climate” advantage over the Northeast and North Central regions.

Population has dispersed both in the path of and in the wake of industrial dispersion as a residential corollary to the product cycle.²⁵ Following World War II housing and an array of residential amenities were increasingly available to the expanding middle class at the peripheries of established settlements. The suburbanization process was nourished not only by short-distance movers leaving the cities for the suburbs, but also by the tendency of long-distance movers to avoid the cities. In most cases, households were able to satisfy the cluster of housing, service, and amenity demands and preferences while retaining access to their job sites.

By the late 1970s, as both firms and households continued to move to the suburbs and exurbs, accessibility was retained, despite higher nominal energy costs, through a series of adjustments. Beale and Bowles report that: “Household heads living in nonmetropolitan counties travel only a median of 4.6 miles to work each day, compared to 7.6 miles traveled by household heads in metro areas. It also takes these people less time to get to work – 14.5 minutes vs. 22.2 minutes for the average metropolitan resident.”²⁶

Taken together, then, we begin to recognize crucial chinks in the armamentarium of the Interventionist Era that has held that *deconcentration* is inherently wasteful of time, energy, and other assorted resources. The *dispersion* which is at the core of deconcentration is what has afflicted the compactness of our industrial era settlement arrangements; an allied process, *decentralization*, has unravelled our central cities. New and displaced development at the periphery, commonly called “spread” or “*sprawl*” development, has been derided throughout the Interventionist Era as profligate and unaesthetic. The lower density physical development characteristic of decentralization in particular has been denounced in the energy-sensitive decade of the 1970s.

Yet, most commentators and analysts have lumped together deconcentration, dispersion, decentralization, low-density development,

²⁵Cf. R. D. Norton and J. Rees, “The Product Cycle and the Spatial Decentralization of American Manufacturing,” *Regional Studies* vol. 13, no. 2 (1979): 141–151.

²⁶“The Rural Commuter,” *American Demographics*, February 1981, p. 12.

TABLE 5
EVIDENCE OF INTERREGIONAL WAGE CONVERGENCE

Wages: New York vs. Texas

New York City and Houston averages as of May 1981; Dallas-Fort Worth averages as of December 1980. Figures are for the metropolitan areas as defined by the Bureau of Labor Statistics. Salaries in the first two categories are weekly; in the last two, hourly.

Occupation	New York City	Dallas- Ft. Worth	Houston
Clerical			
Secretaries	\$289.00	\$283.00	\$314.50
Stenographers	250.50	281.50	291.50
Typists	195.50	186.00	221.50
File Clerks	175.00	166.50	182.50
Messengers	171.50	169.00	179.00
Accounting clerks	235.50	219.50	253.00
Electronic data processing			
Key entry operators	232.50	208.00	237.50
Systems analysts	535.50	453.50	490.50
Programmers	404.50	344.50	425.50
Computer operators	291.00	259.50	286.50
Skilled maintenance			
Carpenters	8.83	9.00	11.69
Electricians	10.23	10.13	11.65
Painters	8.57	9.01	11.00
Machinists	10.93	9.51	11.79
Motor vehicle mechanics	10.57	9.33	10.08
Stationary engineers	10.17	9.17	9.98
Unskilled plant			
Truck drivers	9.67	7.49	8.26
Warehouse laborers	6.95	6.78	7.28
Material handling laborers	8.14	5.66	7.14
Janitors, porters, cleaners	6.17	4.13	3.89

Source: Bureau of Labor Statistics

SOURCE: Table 5 appeared in *Society*, March/April 1982, p. 4.

and sprawl as the undifferentiated cause-and-effect of the difficulties facing our cities. Perhaps it is time to differentiate these processes and decide whether or not we might have allowed our "common" sense and Interventionist Era ideologies to do our thinking for us. Perhaps the larger trends are not only ones that we can live with

after all, but indeed in them we may find partial solutions to the variety of problems resulting from the settlement arrangements of the industrial era.

Today households and firms are making a wide variety of adjustments as they are forced to accommodate technological advances and marked changes in the relative costs of production factors. As jobs and people continue to move to the suburbs and exurbs, the potential for shorter commutes has become a reality. Increasingly, multifamily structures and physical development at ever higher densities are the predictable responses to the inherent energy efficiency – especially for space heating and cooling – of higher density structures. The fuel efficiency of the nation’s transportation fleet has steadily improved as a result of federal mandates to domestic producers and, more importantly, of the public’s response to the rising relative price of gasoline. Firms, likewise, have had to squeeze from their productive processes ever more energy – again, a response less to policy than price.²⁷ In the face of a labor shortage at the end of the century or just beyond, ever higher energy costs will likely prod this process even more. That other production costs including high taxes and expensive land requirements have been avoided or minimized by frequent relocation and/or expansion to suburban or exurban locations or business climates in other regions illustrates an adaptation with a spatial aspect.

In the countryside, too, conventional wisdom is being upended. Rural settings are becoming more attractive, not only to a wide variety of households, but to manufacturing, retail, and service industries. The agriculture sector, now the mainstay of our national exports, continues to prosper without making increased productivity dependent on access to increasing amounts of so-called “prime” land, or even land in general. Shifting land uses have typically caused alarm among those who cannot conceive of other than traditional land-use arrangements. Those who currently despair of the usurpation of rural land for urban uses may seriously misunderstand and underestimate the revolution that has occurred in the countryside during the industrial era. As Simon, Hart, Brown, Luttrell, Vining, et al., recently demonstrated, urban encroachment represents no serious threat to the nation’s supply of rural land.²⁸ Further, the capability of technol-

²⁷*The American Economy: Employment, Productivity, and Inflation in the Eighties*, p. 21.

²⁸Julian L. Simon, “Are We Losing Ground?” *Illinois Business Review* 37 (April 1980): 1–6. See also Daniel R. Vining, Sr., Thomas Plaut, and Kenneth Biesi, “Urban Encroachment on Prime Agricultural Land in the United States,” *International Regional*

ogy to substitute for land renders land, especially “prime farm land,” an anachronism. Increasingly, land is created – man-made. Moreover, not only is the world’s stock of agricultural land increasing for the same reasons that our nation’s agricultural capabilities have expanded, but the recurrent Malthusian concerns of population outstripping “fixed” environmental resources likewise remains unfounded.

The spatial implications of these adjustments for our settlement patterns have been remarkable. Likewise, the flexibility with which we use land has grown dramatically. As Wolf notes, a variety of myths about land are being exposed as secular ideologies and industrial era relics.²⁹ Not only does land retain little, if any, inherent value in the post-industrial era, but even more importantly, changes in demography and technology will continue to lessen our demand for land in the future. Any concern about a shortage of land, then, fails to appreciate the adaptive capacities among population, technology, the environment (including land and other natural resources), and the organizational flexibilities of human systems.

Thus, the rapprochement between dispersed development and higher densities is relatively unplanned. A new, more dispersed settlement form – perhaps even more far-flung than that of our metropolitan areas – is emerging with multiple nodes or clusters of activities. As the functions we require of our settlements change, so apparently may their forms. In the absence of evidence testifying to the superiority of any one urban form, we appear to be quietly reconstructing an array of viable alternatives to those which limited us during the industrial era.

The Post-Industrial Promise and the New Federalism Response

For three-quarters of a century – from the Civil War to the Great Depression – the industrial era endowed both form and function to our cities. Cities loomed in importance as both households and businesses moved into them. Local political and social institutions evolved to mediate the impact of the often harsh industrial realities for those who lived there. The late 19th and early 20th centuries spawned the

Science Review vol. 2, no. 2 (1977): 143–156. And John Fraser Hart, “Urban Encroachment on Rural Areas,” *The Geographical Review* 66 (January 1976): 1–17. And Clifton B. Luttrell, *Our “Shrinking” Farmland: Mirage or Potential Crisis*, Federal Reserve Bank of St. Louis, October 1980, pp. 11–18.

²⁹Wolf, pp. 17–27.

early versions of public sector responsibilities and the bureaucracies to carry them out. Gradually, functions like fire and police protection, sanitation, and education were spun away from households and the voluntary sector and were lodged in the public sector. Individual responsibility retreated as all manner of risks and responsibilities associated with collective life in a common location became socialized. Still, this shift proceeded largely within localities; the essential local orientation was preserved intact. We will now consider the extent to which emerging post-industrial arrangements and the scale of organized social and economic life have rendered the localism of the industrial era both *inappropriate and obsolete*.

These basic local arrangements characterized city life in America through the 1920s. The onslaught of the Great Depression—or more correctly our collective response to it—shattered these arrangements, however. The New Deal and the blizzard of federal government activities that emanated from that era may not have lifted us out of the Depression as expeditiously as did World War II, but they all reflected a changed appreciation for the extra-local scale of economic life, the calamity that beset it, and the type of public sector response deemed necessary. The localism that had reigned in our cities gave way to a national perspective. FDR correctly assessed that over time and without much visibility the *structure of the economy* had been transformed in such a way that its main engines had moved off the farm and into the cities. And maintenance of those engines would necessarily take place in the cities. Consequently, *without really intending it*, the city for the first time became the explicit target of federal intervention. The Interventionist Era was underway.

Roosevelt intended that the aid be temporary in response to episodic economic problems. However, the political power which accompanied population shifts to the cities had established a federal conduit to these cities that was not to be easily dismantled. We had become an urban nation with social and political arrangements to complement our transformed economy. If anything, the early federal attention to economic problems that *only incidentally* focused on cities developed over the years into a variety of place-specific social and *economic interventions* aimed at benefiting the nation generally by attending to the problems of cities specifically. Gradually, place-specific interventions spawned an assortment of people-specific interventions whose further purpose was to bolster the fortunes of city dwellers.

In the half century since the city became the explicit focus of an elaborate lineage of federal government interventions, the economy

and enabling technologies have not stood still. Both have continued to change dramatically, accompanied by a withering assortment of spatial implications. While for a long time federal intervention in the cities had made sense from an economic standpoint, over time the economic justification faded, exposing an essentially political one. The economic superiority of industrial-era arrangements declined in direct proportion to the continued development of new transportation, communication, and production technologies. The industrial city, which had produced remarkable wealth, welfare, and health for the nation, had been accepted as a pinnacle of the urban economic evolution. Few realized that the very processes that had woven the city would begin to unravel it. That the city was a way station rather than a destination along an economic-technological pathway received little support.

The Interventionist Era of the past half century originated in and focused on the city. Even before the nation's economy centered in them, cities had been the locus of problems; this is especially so more recently because we are forcing them to outlive their usefulness. We have mistakenly associated the city's health with form, especially growth, rather than function.

The benchmark general election of 1980 was one of major reorientation. Apart from the reascendency of the Republican party to lead us into the '80s as it had into the '70s, a new conception of federalism was advanced. Nixon and Ford had used general revenue sharing and related devices to shift power back to subnational governments, but the flow of history was against them. Carter's new federalism was undone by "iron triangles" and lack of control over the budget process. By 1980 things were different. Contemporary efforts to reconstruct a new intergovernmental and intersectoral division of labor would shift major responsibilities back to subnational – and especially local – levels of government, and from the public to the private sector. Three major social welfare programs that may be affected are Medicaid, Aid to Families with Dependent Children (AFDC), and food stamps. The current proposal would have the federal government assume the entire bundle of financing and administrative arrangements associated with Medicaid and food stamps. In return, the states would assume the full range of responsibilities for AFDC. This restructuring of social welfare policy is instructive insofar as it extends to urban policy, natural resources, and other domains.

On the one hand, this restructuring of responsibilities is remarkable and should be well received since for the first time since the mid-1960s the welfare expenditures seem to be disciplined by the

restructuring of the demographic base of the nation.³⁰ Unfortunately, this shift also reveals a bucolic desire to return to the more local orientation of past years. And the clock cannot be turned back so simply. The city as an institution and the character of its population have been dramatically altered in the past half century. The outmigration of the middle class, the growing calcification of minorities and the poor, and the restructuring of local and regional economies have rendered the localism that was appropriate to past policy out of synch with urban areas and urban problems of today and tomorrow. The form and function of our urban settlements have changed dramatically in recent years. Population redistribution patterns and the restructuring of local, regional, and even national and international economies have scattered urban America. Rather than a return to local orientations of the past, a refinement of recent national perspectives may be needed most.

New Standards and Expectations to Fit New Circumstances

Today's deconcentration at several levels may be as inevitable a process as we have ever seen take hold of our economy and demography. Perhaps someday soon the advocates of public policy “solutions” to a wide range of “urban” problems will acknowledge these developments and begin to distinguish more carefully between those which violate our comfortable sense of order, predictability, and control, and those which may actually be life threatening. In the urban policy arena, at least, the vast majority of so-called urban problems may not really be problems at all – an unwanted conclusion reached by Edward Banfield a dozen years ago.³¹

It would perhaps be more appropriate to recognize the larger message in this paper that there always has been and will continue to be an inevitable mesh among demography, the economy, and technology that will likely precede the creation of supportive institutions, expectations, and interpretations and help us to accept them. We do not need to be submissive to these trends, but we must recognize the wisdom of adopting new standards for evaluating what is happening around us and responding appropriately. We have only to recall the suspicion and outright hostility with which urban America was received by agrarian America. Our politics, religion, literature,

³⁰Claude E. Barfield, *Rethinking Federalism: Block Grants and Federal, State, and Local Responsibilities* (Washington, D.C.: American Enterprise Institute, 1982).

³¹Edward C. Banfield, *The Unheavenly City: The Nature and the Future of Our Urban Crisis* (Boston: Little, Brown, and Co., 1968).

and other major opinion shapers have yielded only grudgingly to the urban influence. The Interventionist Era, despite its inevitability and occasional benefits, has blinded us to the humility with which we might better conduct our affairs.

Today we must contemplate and perhaps even welcome the possibility of the post-interventionist city in the broadest sense. (See John Sommer's paper in this issue.) The social and spatial aspects of past urban-industrial arrangements appear to be undergoing profound adjustments in order to assure our welfare in the post-industrial era ahead. We should carefully consider how our most well-intentioned urban and welfare policy interventions could hinder this change and our adaptation to it. In so doing, we need not abdicate our responsibility and concern for those who have not fared well within past economic and settlement arrangements and who have been the target of past interventions. But it remains to be seen whether we should revitalize the cities of the fading urban-industrial era if this only means shaping new circumstances to fit familiar policy responses. In our search for the causes of disadvantage and dependence we should look beyond present urban and social welfare policies which have been more appropriate to the urban-industrial arrangements we are leaving behind than to those which appear to lie ahead. Changing patterns of land use and settlement are dissolving traditional conceptions of wealth and our ability to produce and distribute it, and are replacing them with new ones. And linking people with these new opportunities will proceed in ways that differ from those we have known in the past.

A COMMENT ON HICKS

Robert W. Poole, Jr.

Professor Hicks' paper provides a fresh and welcome perspective on the issues of land use and urban form. That his views are at variance with the conventional wisdom only serves to underscore the poverty of much that passes for accepted knowledge in these fields. My only reservations about the paper stem from its tendency not to follow through on a number of provocative observations.

One of these is the mention on page 446 of the problem of large amounts of vacant land in central cities. Hicks notes in passing that most land-use regulation is poorly suited to redevelopment. This would have been an ideal place to cite the tremendous accomplishments in privately conceived and implemented redevelopment that have taken place in Houston over the past two decades. The absence of conventional government land-use controls has permitted private developers great scope for assembling large parcels of land without political interference – and using voluntary acquisition methods, rather than the coercive power of eminent domain, to develop very large-scale projects such as Greenway Plaza. By these means Houston's downtown has been substantially revitalized, but without the large-scale use of tax monies. This singular exception to the general pattern of government redevelopment efforts – and its facilitation by the absence of conventional land-use controls – greatly strengthens Hicks' point.

Furthermore, the power of private forces to effect redevelopment – when unconstrained by land-use controls – is of direct relevance to a current Reagan administration proposal. With great fanfare, the administration has announced its Enterprise Zone proposal as a means of stimulating the private sector to redevelop inner cities. The original concept of enterprise zones, as developed by Peter Hall and Sir

Geoffrey Howe in England, and popularized in this country by Stuart Butler, called for repeal of zoning laws, building codes, and other local land-use and business regulations. The administration proposal, however, never once mentions zoning or land-use controls, focusing almost exclusively on tax relief. Yet tax relief programs have been in place in various forms for many years without major impact on our cities. The Houston experience deserves far more attention in the public policy debate over enterprise zones.

A second valuable insight in Hicks' paper is his suggestion of the viability—perhaps even the superiority for many people—of what is commonly referred to as suburban sprawl. He cites the possibility of shorter commutes for suburbanites who both live and work in the suburbs. But there are several other transportation implications of the shift to the suburbs which Hicks describes so well.

To begin with, although more and more transportation economists recognize it, city policymakers continue to ignore the profound implications of decentralization for transit system economics. Urban bus lines began going bankrupt in the 1950s for a very good reason. The more dispersed the metropolitan area's population became, the more costly it became to provide a grid-type bus service—especially when fares were regulated by a consumer-conscious local government. By taking over the failing bus lines and consolidating them into a monopoly transit entity, cities attempted in vain to preserve an obsolete form of transit. The marketplace was providing information—in the form of red ink and bankruptcies—that the fundamental economics of transit had changed. But the political process willfully ignored that information. Instead, it demanded and received state subsidies, federal capital grants, and then federal operating subsidies. Today, with ridership still declining and farebox revenues covering only one-third of expenses, the absurdities of our cities' transit policies are becoming more evident. What is needed—and what the marketplace would provide, were transit deregulated—is a decentralized transit system made up of express bus lines on high-density commuter corridors, vans and jitneys for low-density areawide service, and taxicabs for premium service.

Another implication of suburbanization is pointed out by Jeff Rigenbach in a forthcoming article in *Reason* magazine. Drawing on John Rae's *The Road and the Car in American Life* (MIT Press, 1971), Rigenbach points out that it is not Snowbelt cities, per se, that are in decline vis-à-vis Sunbelt cities. Rather, he maintains, those cities that are healthy and growing are those that have adapted best to the reality of the automobile and truck, as opposed to those constrained by anti-auto transit systems and land-use policies. This, he

maintains, is a principal reason why Los Angeles, Houston, and Phoenix are booming while Philadelphia, Chicago, and even Atlanta are in decline.

Third, Hicks makes a provocative comment about the 19th century transition from private to public provision of such services as police, fire, and sanitation. One would hope for some insight into *why* these shifts took place, to place in perspective the reversal of this trend that he alludes to on page 466, namely the growing move toward privatization of municipal services (see Robert Poole, *Cutting Back City Hall*, Universe Books, 1980).

Finally, it is very encouraging to note that Hicks' views are finding their way into national policy recommendations, of which the following is an example:

Federal urban policy efforts should not necessarily be used to discourage the deconcentration of industry and households from central urban locations. Each emerging deconcentration trend is nothing more than an aggregate of countless choices by and actions of individuals, families, and firms influenced by social, cultural, and economic considerations; our public policy tools are least useful when they attempt to alter in a predictable way what the individual household or firm will do.

That statement appeared in the report of the President's Commission on a National Agenda for the Eighties. Although repudiated by then-president Carter, it has been informally endorsed by President Reagan. Thus, a greater acceptance of the realities of decentralization seems to be on the horizon at the federal level.