STATE POLICY APPROACHES TO PROMOTE METROPOLITAN ECONOMIC STRATEGY

BY
DR. MARC A. WEISS

PUBLISHED BY
THE NATIONAL GOVERNORS ASSOCIATION
CENTER FOR BEST PRACTICES

OCTOBER, 2002

Since their initial meeting in 1908 to discuss interstate water problems, the Governors have worked through the National Governors Association to deal collectively with issues of public policy and governance. The association's ongoing mission is to support the work of the Governors by providing a bipartisan forum to help shape and implement national policy and to solve state problems.

The members of the National Governors Association (NGA) are the Governors of the 50 states; the territories of American Samoa, Guam, and the Virgin Islands; and the commonwealths of the Northern Mariana Islands and Puerto Rico. The association has a nine-member Executive Committee and three standing committees—Economic Development and Commerce, Human Resources, and Natural Resources. Through NGA's committees, the Governors examine and develop policy and address key state and national issues. Special task forces often are created to focus gubernatorial attention on federal legislation or on state-level issues.

The association works closely with the administration and Congress on state-federal policy issues through its offices in the Hall of the States in Washington, D.C. The association serves as a vehicle for sharing knowledge of innovative programs among the states and provides technical assistance and consultant services to Governors on a wide range of management and policy issues.

The Center for Best Practices is an NGA vehicle for sharing knowledge about innovative state activities, exploring the impact of federal initiatives on state government, and providing technical assistance to states. The center works in a number of policy fields, including agriculture and rural development, economic development, education, energy and environment, health, social services, technology, trade, transportation, and workforce development.

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Contents

Foreword

From August 2001 through July 2002, the National Governors Association Center for Best Practices conducted a major initiative, "State Leadership in the Global Economy," in collaboration with the U.S. Council on Competitiveness. The focus of the initiative was to provide Governors and state policymakers with cutting-edge tools to address the economic development challenges of the 21st century. A key issue to emerge from this initiative is that economic activity occurs in a regional context, and policymakers ignore this fact at their peril.

Beginning with the discovery of innovative regional economic networks in Italy in the early 1980s, policymakers have begun to take notice of the importance of formulating regional strategies for economic development. The popularization of economic development strategies that focus on a region's clusters—geographically concentrated and specialized complexes of competing and cooperating firms and supporting institutions—almost necessitates a regional approach. Economic growth and prosperity, it is now generally accepted, rely on increased productivity, which is brought about by innovation in its many forms (process technology, organizational, and product). Innovation nearly always occurs as a process of interaction between actors, normally at the regional level.

The effects of regional innovation were illustrated in the 1990s, which saw the rise of the "powerhouse" metropolitan economy. These metropolitan economies are often identified by the cities that they encompass but are chiefly fueled by the suburban economies that surround them. Unfortunately, the further concentration of jobs and economic growth in America's metropolitan regions throughout the 1990s stood in stark contrast to the continued stagnation and population outflow of nonmetropolitan regions nationwide.

In the coming decades, the nation's Governors will face the challenge of ensuring the continued economic health of America's metropolitan regions. Additionally, new strategies will be required to ensure that the benefits of prosperity and growth in metropolitan regions are shared by all citizens, both within and outside of these regions, and, in particular, with less-advantaged citizens in the urban cores.

The public policy implications of this situation are wide-ranging. In the economic development field, fragmented political jurisdictions at the regional level make gubernatorial leadership in regional development nearly inevitable, inviting continued policy innovation at the state level for decades to come. The economic health of the nation's urban areas and the accompanying conditions in the less-advantaged populations that tend to reside in these areas are also, in large measure, dependent on the health of the broader regional economy. Furthermore, important decisions about public resources, in transportation, higher education, and health care, all require state policymakers to adopt a regional "lens" to respond effectively.

Metropolitan Economic Strategy and the Governors

This report was authored by Dr. Marc A. Weiss, Chairman and Chief Executive Officer of the Prague Institute for Global Urban Development and Public Policy Scholar at the Woodrow Wilson International Center. It is intended to provide Governors and state policymakers with an overview of what can make regional metropolitan economies grow. While appropriate metropolitan economic strategy must be determined by the agreement of local stakeholders, this report focuses on two key elements of any successful policy: investing in fundamental assets and building dynamic industry networks (clusters). In addition, this report discusses specific policy recommendations for linking inner cities to the region's growth.

I. State Governments and the Emergence of the New Economy

Despite the recent downturn in the stock market and the uncertain fortunes of technology companies, increasing attention is being paid to the significant impacts of the so-called "New Economy" on America's future prosperity. The New Economy is more than just a handful of corporations and business startups, far more even than the Internet and World Wide Web. It represents an accelerating cycle of capital investment and job creation, fueled by increasing productivity and innovation in the production and distribution of goods and services. While the recession has put a temporary damper on economic expansion, brought about job losses, postponed investments, and increased bankruptcies, a new round of business and job growth can be expected, with technological advancement serving as an engine of economic competitiveness. Fundamentally, the New Economy is characterized by three key features of modern activity: it is knowledge- and information-based; it is technology- and communications-intensive; and it is globally oriented.

Governors have recognized the vitality and importance of the long-term structural changes that are fueling the New Economy and, in many cases, have moved aggressively for their states to take advantage of the possibilities for greater prosperity by becoming far more economically competitive in the new global marketplace. Indeed, the National Governors Association initiated a series of publications on The New Economy: Governing in a Global and Technological Age, starting with a major report on *State Strategies for the New Economy*. Organizations as diverse as the U.S. Department of Commerce Office of Technology Policy, the Milken Institute in Santa Monica, California, and the Progressive Policy Institute in Washington, D.C., have produced various rankings which rate the 50 states on their general receptivity to and competitive advantages within the New Economy framework. As a result, numerous Governors and state governments have been retooling their menus of economic development policies and programs to effectively address major challenges and opportunities of the New Economy.

Such approaches include placing greater emphasis on strengthening higher education and university research, investing in transportation and infrastructure projects ranging from international airports to broadband telecommunications systems, promoting global trade networks for the state's businesses, attracting and retaining technology companies and highly skilled "knowledge" workers, encouraging venture capital investment and business financing for technology commercialization, and generating technology-focused industry clusters.

Why Metropolitan Regions are the New Engines of Economic Growth

One potentially important economic development policy that has not yet been emphasized by many state governments is "metropolitan economic strategy"—

Only the metropolis has the fundamental assets that together can offer the combination of specialization and diversity that stimulates self-sustaining economic development and job creation.

targeted efforts to grow businesses, jobs, and incomes by focusing on the state's major metropolitan areas. Metropolitan regions are the key competitive geographic units of the New Economy, vital building blocks in generating and sustaining prosperity and quality of life for each of the 50 states. These expansive urban-suburban-exurban areas are now the main battleground where competition is won or lost in developing new inventions and generating investment, jobs, trade, high value-added production, and enhanced incomes. Indeed, metropolitan regions today account for between 80 percent and 90 percent of the nation's gross domestic product and job growth, which means they are among the most vital sources of prosperity for every state's economy. Promoting innovation and productivity is essential for competitive success in the New Economy, and metropolitan regions have become the leading generators of technological and organizational advances in the production and distribution of goods and services for the global marketplace. The main prescription for victory in global economic competition is to establish metropolitan centers of innovative activity, combining creative human talent with state-of-the-art equipment in order to incubate and foster technical advances in a wide range of interrelated products and production processes.

The key reason for the growing importance of metropolitan economies in generating state and national prosperity is their essential character as the only geographic entities that contain, in relatively compact form, the critical mass of skills and resources; the necessary population density and concentration of market incomes; the range of specialized knowledge and institutions; the wide diversity of vitally needed facilities and services; and the fully developed physical and human infrastructure that are prerequisites for new ideas, products and production methods, technological and organizational innovations, and dynamic economic growth and investment. While rural areas can and do contribute substantially to overall economic well-being through agriculture, mining, natural resources utilization, and recreation, they cannot generate the extensive and competitive prosperity and quality of life for millions of people that emanate primarily from metropolitan regions. *Only the metropolis has the fundamental assets that together can offer the combination of specialization and diversity that stimulates self-sustaining economic development and job creation. In this setting the clustering and networking dynamics among many different firms, entrepreneurs, and institutions interact in ways that spawn and accelerate growth of production and exports, as well as expansion and spreading of incomes and wealth.*

The evidence is mounting on the essential state, national, and international economic role of metropolitan regions, and it comes from a wide array of expert analysts. One such source is research performed by a highly respected economic analysis and management consulting firm, the Standard & Poor's DRI division of the McGraw-Hill Companies, which resulted in the publication of two studies. These studies, cosponsored by the National Association of Counties and the United States Conference of Mayors and entitled *U.S. Metro Economies: The Engines of America's Growth* and *U.S. Metro Economies: Leading America's New Economy*, document the overwhelming presence of economic activity in urban regions and its impact on overall growth in high-technology fields and throughout the national economy:

> The geographic concentration of business and people in metro areas creates unique economic conditions that generate new industries, speed the diffusion of knowledge, spur technological innovation, and increase productivity. Metro areas have larger markets for goods and services, more specialized labor pools, and more extensive and sophisticated transportation and telecommunications networks than non-metro areas. These competitive advantages make metro areas the engines of U.S. economic growth and the source of new high-technology industries. Today, metro areas generate more than 80% of the nation's employment, income, production of goods and services, and 94% of high-tech jobs and output…and are the gateway for 83% of U.S. merchandise exports.

In addition, a steadily expanding group of scholars and experts in related fields (e.g., economics, business, management, geography, planning, and public policy) argue that, as globalization advances and the speed and convenience of international transportation and telecommunications bring people and goods closer together, the strategic value of specific places becomes more, rather than less, important. This is because highly skilled and educated entrepreneurs and professionals can locate where they want to be instead of where they must be, with a much wider range of choices available to them. For example, Professor Michael Porter of Harvard Business School, in his book, *On Competition*, emphasizes the growing tendency of corporations to concentrate their major activities in a specific "home base" located in metropolitan regions:

> When considering the globalization of competition, however, one must confront an apparent paradox: Although companies do indeed compete globally and inputs such as raw materials, capital, and scientific knowledge now move freely around the world, strong evidence shows that location continues to play a crucial role in competitive advantage . . . This geographic concentration of competitive advantage appears not only in established industries such as automobiles and machine tools but also in new industries such as software, biotechnology, and advanced materials . . . [G]lobal companies have indeed dispersed activities to many countries, but they continue to concentrate in one location a critical mass of their most important activities for each of their major product lines or businesses.

Metropolitan regions are the most often analyzed geographic unit represented in national and international location ratings.

New York Times business columnist Joel Kotkin, in his recent book, *The New Geography: How the Digital Revolution is Reshaping the American Landscape*, makes a closely related point:

> Decisions about where to locate businesses, for example—once dependent on questions of access to ports, roads, rails, or raw materials—are increasingly dependent instead on the ability to link often scarce human resources . . . These changes profoundly alter the very nature of place and its importance by de-emphasizing physical factors . . . and placing greater emphasis on the concentration of human skills in dense concentrations of population . . . . The more technology frees us from the tyranny of place and past affiliation, the greater the need for individual places to make themselves more attractive. Surveys of high-technology firms find that among factors that drove their decision of where to locate, a "quality of

> life" that would make the area attractive to skilled workers was far more important than any traditional factor such as taxes, regulation, or land costs.

Metropolitan economic strategy cannot succeed without strong state government support, and states will not thrive economically without focusing increasingly on metropolitan strategies.

Views emphasizing the increasing role of economic geography and the competitive advantages of metropolitan regions are strongly reinforced not only by numerous academics, writers, and consultants, but, much more importantly, by many business executives, corporate real estate professionals, site selection advisers, and economic development location experts, all of whom primarily target metropolitan regions when they conduct and publish surveys of the "best places for business." Indeed, a detailed analysis of the business media and related publications—including *Fortune*, *Industry Week*, *Forbes*, *Entrepreneur*, *Financial World*, *Money*, *U.S. News & World Report*, and *Places Rated Almanac*—clearly demonstrates that metropolitan regions are the most often analyzed geographic unit represented in national and international location ratings. Even when the title of the article is "the best cities for business," what the magazine or rating agency really is evaluating are metropolitan regions, not central cities.

Why Governors and State Governments are Essential for Metropolitan Economic Strategy

Every state government has power over local governments within its boundaries and responsibility for maintaining and enhancing prosperity and quality of life for the state's citizens. In recognizing that metropolitan economic strategy is the most effective way to generate and enhance statewide prosperity, a state government is in the best position—better than the federal or local governments—to mobilize the concentrated resources needed to invest effectively in improving the state's economic competitiveness in the global marketplace. State governments control the bulk of funding and decisionmaking in key areas such as transportation and infrastructure and play a major role in education, research, workforce development, environmental protection, trade promotion, taxes and regulations, and many other vital aspects of investments, incentives, business climate, technological innovation, and public policy. The bottom line is clear: metropolitan economic strategy cannot succeed without strong state government support, and states will not thrive economically without focusing increasingly on metropolitan strategies.

Metropolitan Economic Strategy: Jump-Starting Regional Economic Growth

Every metropolitan region experiences economic growth or decline, regardless of whether there are comprehensive plans or coordinated initiatives. Metropolitan regions function as fully integrated economies in terms of the production and distribution of goods and services, and they will function as such with or without a coherent economic strategy. A critical determinant of a region's success is the decisionmaking process of private-sector executives, investors, entrepreneurs, and consultants who are making facility location commitments in the global marketplace, especially their evaluation of the synergy and attractiveness of metropolitan regions as centers of innovation that can provide businesses with a competitive advantage.

Companies make decisions regarding investment, production, distribution, and site selection based on the assets and qualities of the entire metropolitan area.

Unfortunately, regional economic growth often occurs haphazardly and, consequently, may be missing opportunities to produce greater investment, higher incomes, and more equitable distribution of the benefits of prosperity among people and places. Most regions do not have viable mechanisms for promoting coordinated, metropolitan-wide economic development by creating a common vision, formulating a collective strategy, or jointly cooperating to implement major initiatives. Much of the contemporary debate centers on the impacts of regional economic growth, including whether growth is too fast or too slow, problems of fiscal disparities and geographic or social inequities, and harmful effects on environmental quality. This discourse is primarily about analyzing trends and reforming policies.

Metropolitan economic strategy, on the other hand, is a proactive organizing principle that directly depends on regional teamwork and citizenship. Such strategies are explicitly designed to bring together the public and private sectors from across the entire region to formulate and carry out a coordinated set of targeted investments in people and places. These strategies are consciously designed to enable businesses to grow, jobs to expand, and quality of life to improve. Each of the major constituencies—business, government, and community leadership—must closely collaborate for the metropolis to thrive economically, socially, and physically. Just as communities, cities, counties, and states use economic development plans to guide their actions, the many different communities and constituencies that comprise a metropolitan region must engage in farsighted, comprehensive planning and united action if they are to compete effectively and succeed in the global economy.

Teamwork: Creating Metropolitan Identity to Compete Effectively in the Global Marketplace

The real "city" of today is the metropolis. Metropolitan regions are the most economically complete components of urban geography and demography, and the main access points for individuals trying to thrive in the global economy. Yet the greatest barrier to regional coordination, cooperation, and collaboration is the lack of a common metropolitan consciousness and citizenship. Therefore, promoting teamwork by encouraging households and families to begin reaching beyond local political boundaries in pursuit of their common interests and goals of increasing prosperity and enhancing quality of life is essential for individual and collective success.

By emphasizing the interwoven economic destinies that bridge across families and communities within metropolitan regions, people can begin to see themselves as members of a cohesive economic team that is actively competing against other economic teams all over the world. Metropolitan economic strategy is thus vital for encouraging a unified sense of metropolitan purpose. It promotes "identity regionalism," a common interest and a sense of mutual benefit that is much more powerful and effective than the typical "functional regionalism" organized around managing metropolitan public facilities such as airports, transit systems, parks, water and sewer systems, and other types of single-purpose governmental responsibilities.

A vital challenge is for metropolitan residents to begin engaging in this new form of economic teamwork, clearly understanding that doing so will best enhance their opportunities to prosper in the international marketplace.

The lack of political and cultural traditions that tie people together within a common metropolitan framework poses a major challenge for regions competing economically in the global marketplace, as the average person does not see himself or herself as an integral part of a metropolitan economy. Governmental jurisdictions in which citizens exercise their right to vote are organized along local, state, and federal lines. Metropolitan regions transcend the boundaries of cities, towns, townships, villages, counties, special districts, and other public entities run by elected officials. Many of America's metropolitan regions cut across state lines, and some, including Buffalo, Detroit, El Paso, and San Diego, even cross national borders. Most senior corporate executives do clearly understand regional economic connections, because product markets and labor markets operate across the whole metropolis, as do most major institutions such as hospitals and newspapers. Companies make decisions regarding investment, production, distribution, and site selection based on the assets and qualities of the entire metropolitan area, even though their facilities are located within the administrative jurisdiction of smaller units of local government.

One important exception to the general lack of common metropolitan identity is in college and professional sports and, to a lesser extent, with certain forms of arts and entertainment, such as orchestras and zoos. If one draws an invisible circle around an entire metropolis, one typically finds that everyone who lives and works within that circle is expected to "cheer for the home team." Competitive team sports is one of relatively few spheres of interest uniting cities, suburbs, exurbs, and rural areas, even transcending state and national borders. The challenge for 21st century global competitiveness in America is for diverse urban populations to relate economically in the same way they identify as sports fans, and collectively support their "home team" by working together as citizens of a metropolitan economy to promote local and regional prosperity and quality of life. Given that the dynamic of metropolitan interrelationships represents how the global economy actually functions and regional vitality is truly maintained, it is only a matter of time before everyone recognizes this modern reality. A vital challenge for metropolitan residents is to begin engaging in this new form of economic teamwork, clearly understanding that doing so will best enhance their opportunities to prosper in the international marketplace.

II. A Tale of Two Regions: Successful Metropolitan Economic Strategies in Austin, Texas, and Akron, Ohio

Two regions that successfully formulated and implemented metropolitan economic strategies during the past two decades are Austin, **Texas**, and Akron, **Ohio**. Each region took a very different approach to transforming its metropolitan economy, but one common element is the essential role played by the state government.

Metropolitan Austin: Planning for and Achieving a "High-Tech" Takeoff

Many places have tried to replicate the high-technology economic vitality of California's "Silicon Valley" in the past quarter century, but few have succeeded. One place that definitely put all the pieces in place and achieved its goal is Austin, which has been transformed from a quiet state capital and college town, during the 1970s, to one of America's and the world's leading technology centers today. Leadership for this effort came initially from the Greater Austin Chamber of Commerce, which began in the 1960s to promote economic diversification by focusing on attracting electronics manufacturing factories of major companies such as IBM, Motorola, and Texas Instruments. Metropolitan Austin's economic strategy came together in 1983, however, when the business community and local elected officials joined hands with University of Texas administrators, Governor Mark White, and the state legislature to successfully attract the nation's first public-private high-technology research consortium, the Microelectronics and Computer Technology Corporation (MCC).

In the process of winning the nationwide competition against three other technology-oriented metropolitan regions—North Carolina's Research Triangle Park (Raleigh-Durham-Chapel Hill); Phoenix, Arizona; and San Diego, California—Governor White and the state legislature committed millions of dollars to endow 32 new professorships in engineering and science at the University of Texas at Austin. They also moved to attract top-quality faculty and graduate students in technology fields, build additional research laboratories and upgrade facilities on campus and at the university's Balcones (now Jake Pickle) Research Park, and provide financial support for several other important initiatives. These substantial state budget commitments were renewed and expanded by subsequent Governors, including Governor George W. Bush. The presence of MCC served as a significant magnet for many technology companies, including Advance Micro Devices, Applied Materials, 3M, Apple, and Samsung, to locate manufacturing plants, research and development facilities, and customer service centers in Austin. In 1984, one year after winning the competition to attract MCC, the University of Texas spun off its most important home-grown technology company, Dell Computer Corporation, which grew to become one of metropolitan Austin's largest employers.

In 1988 Austin also attracted Sematech, another major national research consortium sponsored by the technology industry. While actively wooing

Sematech, the university—with strong support from the state government—created the Austin Technology Incubator to promote the commercial applications of research and development projects and the transfer of technological inventions and innovations from laboratories to businesses. The partners also established the Texas Capital Network to expand venture capital investments and increase the availability of financing and management assistance to encourage the formation and growth of new companies. All told, the private and public sectors, including the state government, have invested billions of dollars to ensure the success of Austin's metropolitan economic strategy.

Today metropolitan Austin is a vibrant high-tech center for computers, semiconductors, software, medical products, telecommunications, environmental technologies, and multimedia. Nearly one third of the region's adult population has college degrees, a percentage that is far above the national average. These highly educated and skilled workers and entrepreneurs are attracted by the university-oriented culture, the region's attractive physical environment, and the city's thriving music scene, night life, and entertainment. Austin's metropolitan economic strategy successfully created strong, dynamic business growth, so much so that the region is now debating transportation improvements and land-use management to maintain a good environment and quality of life. This discussion has extended to improving education and job training and enhancing neighborhood revitalization in East Austin, reaching out to the area's African-American and Hispanic families and communities, which have not sufficiently benefited from the rapidly rising regional prosperity.

Metropolitan Akron: Radical Retooling from Tiremaker to Polymer Scientist

Akron's recent economic transformation highlights the important fact that the New Economy is much more than computers, software, and the Internet. The key to success in the New Economy is to take full advantage of advanced knowledge, skills, and techniques in every aspect of producing and distributing goods and services. Metropolitan Akron did not become another Silicon Valley, nor did it try to become something that it is not. Instead, Akron wisely built upon its existing assets and strengths to create an innovative technological edge in global competition.

Akron's reputation and fortunes had rested for a century on rubber. The city and region became the world center for rubber tire manufacturing, home to the "big four"—Goodyear, Firestone, Goodrich, and General Tire. Yet in the 1970s and early 1980s, the Akron region experienced the same type of wrenching plant closures and job losses that swept through much of America's industrial heartland during this period of dramatic global economic change. Rubber tire manufacturing in metropolitan Akron declined so precipitously that by 1983 unemployment was over 12 percent and more than 40,000 factory jobs had vanished.

Having hit bottom, and with the threat of widespread joblessness and poverty looming in the future for many of its citizens, the leadership of this once-thriving and resourceful blue-collar mecca decided to fight back by planning for a new and different future. City and county officials, corporate executives from the Akron

Regional Development Board and Akron Tomorrow, administrators of the University of Akron and other major institutions, and the Ohio government, led by Governor Richard Celeste and later by his two successors, Governor (now U.S. Senator) George Voinovich and current Governor Bob Taft, have worked actively with the state legislature to create and sustain a metropolitan economic strategy for Akron. The foundation of this strategy was the recognition that although Akron companies would no longer be the world's leading manufacturers of rubber tires and related products, there was an enormous infrastructure of knowledge and skills, physical capital, institutional resources, and human relationships that could help Akron compete more effectively in the global marketplace. Specifically, the region, having served as the innovator for developing synthetic rubber during World War II, contained within it a great deal of expertise in the design and production of polymer-based synthetic materials, including plastics and a wide variety of related products.

Thus the University of Akron's Rubber Research Institute was transformed into the large new College of Polymer Science and Engineering, and metropolitan Akron soon became one of the world's leading centers for polymer science and engineering. The major tire companies expanded their research and development laboratories and related facilities in the region, even as they downsized or abandoned factories. Companies from around the world, such as Shanghai Tire and Rubber Company, quickly followed suit and established advanced corporate research centers in Akron. The state created the Edison Polymer Innovation Corporation to facilitate transfer from the research labs to commercialization of new products by existing companies and new startup ventures. The Akron Regional Development Board aggressively recruited polymer firms to help achieve critical mass, while other public-private partnerships focused on developing the broader economic environment. They worked on providing venture capital and business financing, improving education and worker retraining, rebuilding downtown Akron as an entertainment center, connecting the region's local governments through commercial property tax-base sharing, and creating stronger linkages to economic activity in Cleveland and the broader northeast Ohio area, including Case Western Reserve University's Department of Polymer Materials in Cleveland. Akron's newest symbols of corporate success, rather than the tire companies, are now polymer-based firms such as Advanced Elastomer Systems, Rubbermaid, and Little Tikes. Polymers are a critical component of the fast-growing medical products sector—prosthetics, orthodontic, pharmaceutical, and surgical items—and an integral aspect of the major machinery and equipment industries of Michigan, Ohio, and Pennsylvania, including the production of cars and trucks.

Today there are over 500 polymer companies in metropolitan Akron and thousands of new, good-paying jobs. Perhaps the best symbol of this transformation is Canal Place, a once-abandoned B.F. Goodrich Tire factory near downtown Akron, which is now a thriving office complex, research and development center, and business incubator, involving dozens of growing ventures. It houses the headquarters and hundreds of employees of polymer-based Advanced Elastomer Systems.

Polymer-oriented entrepreneurs, scientists, engineers, and skilled production workers are just as "high-tech" as their counterparts in the computer industry. More importantly, they are much more likely to want to live and work near their colleagues and fellow polymer experts in Akron and the metropolitan region. The city, for its part, has strengthened its central core through a wide variety of cultural, recreational, arts, and entertainment-oriented uses, including a new convention center and a new baseball stadium. Akron has also created an environmentally sensitive 23-mile heritage tourism biking and hiking trail along an old canal corridor that originates in downtown Akron. Fully capitalizing on the attractiveness of its educational institutions and improved quality of life is what has made Akron's metropolitan economic strategy so successful.

III. Key Roles for State Government in Metropolitan Economic Strategy

Finding the right vehicles for mobilizing regional cooperation in support of developing viable strategies and establishing the best governance mechanisms that will enable good strategies to be effectively implemented are critical to the success of metropolitan economic strategies. Governors and state governments have a vital role to play in providing leadership and resources to encourage and empower such efforts. State governments can provide the essential leadership in ensuring that metropolitan economic strategies are successful by using their substantial resources and authority over transportation, education, business incentives, environmental regulation, and a host of other important factors.

Each state and region must make its own way, navigating the complicated challenges of bridging across many levels of separate jurisdictions and governing units. Since metropolitan regions necessarily involve many layers of administrative jurisdictions and a multitude of elected officials, providing coherent governance is a difficult challenge. This challenge is made even more complex because the active involvement of the private sector is absolutely critical for success. Forming the right kinds of partnerships, establishing the right types of leadership, creating the right forms of cooperative governance structures—these and many other issues must be resolved for metropolitan economic strategy to make a visible and long-term difference. It may be necessary for new public-private regional governance mechanisms to be designed, legitimized, and granted decisionmaking authority and resources in order to enforce agreements and implement projects more effectively. There is no one best solution, and one answer does not adequately address every situation.

Providing Leadership and Convening Metropolitan Stakeholders

Governors are in an excellent position to help bring the various units of local government into a regional partnership.

Governors are in an excellent position to help bring the various units of local government into a regional partnership by providing legal and financial assistance, encouragement, and gubernatorial leadership. Indeed, some of the most significant challenges for state governments in promoting and supporting metropolitan economic strategies are governance questions, such as: Who speaks for the region? What is the best way to mobilize effective public and private metropolitan leadership and cooperation across jurisdictions and sectors? How do the various public- and private-sector leaders collaborate across state lines where metropolitan regions encompass part of two or more adjacent states? What is the relationship to the federal government? How does a state government deal with Canada or Mexico for metropolitan regions that cross national boundaries?

Every successful metropolitan economic strategy begins with organizing effective regional collaboration and partnership. Therefore, the first step for Governors and state governments is to identify all the key metropolitan stakeholders that will help establish and reinforce a regional consensus regarding what is to be done and who is responsible for doing it. One important stakeholder group is the business community. Most regions have metropolitan chambers of commerce, corporate CEO organizations, downtown business groups, industry associations, and other private-sector entities that can and should play leading roles in formulating and implementing metropolitan economic strategies. Many regions also have metropolitan economic development and international marketing and promotional organizations—run privately, publicly, or as public-private partnerships—that are ideally suited to serve as one of the focal points for strategic economic initiatives. Major businesses and institutions whose long-term viability is more directly tied to the future economic prospects for the entire region—including large corporations, print and electronic media firms, energy and water utilities, universities, hospitals, business improvement districts, labor unions, and cultural and performing arts organizations—can and should be mobilized for ideas, funds, publicity, assistance, and consensus building.

The first step for Governors and state governments is to identify all the key metropolitan stakeholders that will help establish and reinforce a regional consensus regarding what is to be done and who is responsible for doing it.

An equally important metropolitan stakeholder group is local government. Regional councils of local governmental units, as well as specialized agencies for intergovernmental coordination such as economic development districts or metropolitan planning organizations, can help formulate economic strategies and build cooperation among local governments to implement these plans. The many state and local government departments, agencies, authorities, and quasi-public development corporations responsible for economic development, workforce development, commerce, community development, and other related areas are absolutely essential for any metropolitan economic strategy to succeed.

Special purpose groups of metropolitan mayors or county officials, as well as administrative units, including airport authorities, water port authorities, transit authorities, and other regional public works management or regulatory bodies, often can provide expertise, resources, and support for strategic economic development. Some regions will contain military bases or other significant federal government installations and facilities, and the administrators of such operations should also be drawn into helping design and implement metropolitan economic strategies.

Another key group of metropolitan stakeholders consists of local and regional civic organizations, citizens' associations, faith-based groups, labor unions, and advocacy coalitions that are concerned about issues ranging from fair housing and job placement to environmental protection and historic preservation. Indeed, there has been a major expansion in the scope and vitality of regional nonprofit associations and coalitions during the past decade, motivated by a wide variety of economic, social, and environmental concerns.

The growing number and quality of metropolitan initiatives fostered by activists and professionals affiliated with such entities as the Congress for the New Urbanism, the Alliance for Regional Stewardship, and the Citistates Group certainly constitutes a major resource potentially available to mobilize and motivate citizen involvement and enthusiasm for metropolitan economic strategies. Although many of these groups are open to business-led or government-led regional growth agendas, some are generally more critical of such agendas, and others are overtly hostile. Such a lack of initial consensus makes it absolutely imperative that a broadly representative base of regional citizen groups be welcomed to the negotiating table and actively included in metropolitan economic strategy formulation and decisionmaking from the very beginning.

Only through such an open and participatory process will ordinary citizens and community-based groups be able to see for themselves that their interests will be genuinely served by working together for the "home team" and collaborating with business, government, and civic leadership on metropolitan economic strategies that incorporate vital goals such as environmental quality and economic, social, and geographic equity.

States may provide program funds and other resources for targeted investments . . . or may refuse to spend money on items that could be harmful for metropolitan economic competitiveness and quality of life.

Governors and state governments can also give a major boost to metropolitan economic strategies through funding strategies. States may provide program funds and other resources for targeted investments that help carry out the overall strategic development plan or may refuse to spend money on items that could be harmful for metropolitan economic competitiveness and quality of life. In most cases, funds would be spent annually through the state's budget for transportation, education, and other categories. What the state government can offer a metropolitan region is the willingness to listen and negotiate through the Governor's office—in some cases cutting across or combining resources from various state departments and agencies—to provide resources in support of the highest-priority projects identified by the region's leadership. In the metropolitan Austin and Akron success stories described above, Governors and the state governments played vital roles and were very substantial sources of funding for the university initiatives and other key investments. Indeed, metropolitan economic strategies must obtain state government financial support to be truly effective.

Establishing Governance Structures for Effective Metropolitan Coordination

State governments directly permit the creation of special regional governmental entities with the powers and resources necessary to coordinate key metropolitan initiatives, such as the various regional property tax–sharing arrangements in metropolitan regions such as Akron, Dayton, Minneapolis-St. Paul, and the **New Jersey** Meadowlands. The urban growth boundary that limits sprawling suburban development and preserves valuable agricultural land around metropolitan Portland, **Oregon**, was directly authorized by state legislation; and Metro, Portland's elected metropolitan governing body, which oversees regional land-use planning, was also created through state legislative action. Similarly, the **Georgia** Regional Transportation Authority was recently created by the state government to coordinate transportation and land-use planning for metropolitan Atlanta.

Most types of regional cooperation, coordination, collaboration, and consolidation by local governments generally require some form of state enabling legislation or another method of state government authorization.

State governments can directly encourage metropolitan economic strategies by providing seed funds for organizational development, professional and entrepreneurial training, technical assistance, and strategic planning, and by offering competitive financial and regulatory incentives to promote regional cooperation. For example, the **Virginia** State Chamber of Commerce and its Urban Partnership worked hard during the mid-1990s with Governor George Allen and the state legislature to create the Regional Competitiveness Program in 1996. Under this program, state government funds are made available to metropolitan partnerships that promote regional economic development. The impetus for this program came from the coastal Tidewater area of southeastern Virginia, where the prospect of downsizing at the Naval Shipyards and other military facilities in and around metropolitan Norfolk prompted a great deal of concern about the region's future economic fortunes. With funding from the Regional Competitiveness Program, ten cities, six counties, and one town—with a combined metropolitan population of 1.5 million—soon joined forces to create the Hampton Roads Partnership, a public-private organization with regional government, business, education, civic, and military leaders.

Working with the state's Center for Innovative Technology, the Virginia Electronic Commerce Center, Newport News Shipbuilding, Verizon, Christopher Newport University, and other institutions, the Hampton Roads Partnership created the Hampton Roads Technology Council. Its goal is to support the startup and expansion of technology-based firms in the region, including the Hampton Roads Technology Incubator, with funding from the National Aeronautics and Space Administration and other federal and state government sources. The Hampton Roads Partnership is also focused on strengthening workforce development, generating seaport and other transportation improvements, promoting tourism, and fostering electronic commerce, e-government, and Internet-based education through its "Smart Region" initiative.

State governments also possess crucial regulatory powers over local governmental jurisdictions and thus can act as enablers in support of metropolitan economic strategies, as well as helping ensure that state and local government laws, regulations, and procedures foster a positive climate for investment, jobs, and prosperity. Most types of regional cooperation, coordination, collaboration, and consolidation by local governments generally require some form of state enabling legislation or another method of state government authorization.

This includes central city efforts to annex surrounding suburban territory and capture a larger share of the metropolitan populations, in places like Albuquerque, Columbus, Houston, and San Jose. It also includes city-county government consolidation, as has been done in Indianapolis, Jacksonville, Lexington (Kentucky), Louisville, Nashville, Virginia Beach, and other metropolitan regions.

The Federal Role in Metropolitan Economic Strategy

The federal government also has an important role to play in enabling state governments and localities to compete effectively in global markets and to successfully design and implement metropolitan economic strategies. Basically, the federal government can engage in two types of actions, both of which closely

The experiences of federal government collaboration across separate executive branch entities, and of negotiating agreements with state and local governments, can help serve as models of federal-state-regional-local partnerships.

parallel state government activities. One useful federal action would be to provide funds to supplement state government funding for metropolitan planning and organizational development. Both public and private metropolitan entities need such resources in order to do the research and the outreach that is a fundamental prerequisite for strategic regional economic initiatives.

The other useful step the federal government can take is to interact with state and metropolitan public officials, and with private-sector, civic, and community leaders, and be responsive to their strategically identified, consensus-based needs for targeted metropolitan economic investment. The federal government, like state governments, can make negotiated agreements through both the White House and Congress. Areas in which these are appropriate include targeted funding for major transportation and infrastructure investment, education and workforce development, research and technology, business financing, and global trade and marketing. There are also important federal roles in catalyzing and supporting many other key projects and programs that metropolitan regions must accomplish if they are to generate prosperity and quality of life in the New Economy and be competitive in the global marketplace.

During the past decade, the federal Empowerment Zones and Enterprise Communities initiative has experimented with bringing together departments and agencies from across the federal government to collaboratively devote increased resources to urban and rural communities according to their approved strategic economic and community-development plans. Similarly, under the **Oregon** Option, nine cabinet-level federal departments and agencies entered into a negotiated agreement with Oregon, Multnomah County, and Portland that permitted greater flexibility in the use of federal funds for human services programs and activities. The experiences of federal government collaboration across the "stovepipes" of separate executive branch entities, and of negotiating agreements with state and local governments, can help serve as models of federal-state-regional-local partnerships for metropolitan economic strategies.

IV. Obstacles and Opportunities for Metropolitan Economic Strategies

Governors can provide direct leadership for regions to come together, develop, and carry out metropolitan economic strategies, and can lead by example in terms of state government actions to galvanize regional teamwork and investment. However, the effectiveness of these interventions will differ, based on the special situations that regions face. Two critical issues to consider are the timing of such efforts and the location-based obstacles to collaboration that exist when metropolitan areas cross state or national jurisdictions.

Timing: Crisis and Opportunity

Regional stakeholders generally are the most highly motivated to act collaboratively during times of perceived crisis. Thus, the threat of military budget cutbacks and base closures, downsizing or departure by one or more large private employers, an economic recession or other precipitous decline in prosperity—all of these—can serve as catalysts for regional leadership to join hands and work hard together to create a brighter economic future. Examples include metropolitan Akron's polymer-based growth strategy, the Hampton Roads Partnership in **Virginia**, and the Gateway Cities Partnership in southern **California**, described in more detail below. In each case, the metropolitan region came together out of a sense of urgency, responding to various levels of concern about job loss and uncertain economic prospects.

Sometimes an opportunity can generate the same kind of cooperative energy as a crisis—witness the aggressive efforts in 1983 by metropolitan Austin, **Texas**, to win the national competition and attract the Microelectronics and Computer Technology Corporation (MCC). Metropolitan Atlanta, **Georgia**, very effectively used its hosting of the 1996 Summer Olympics as an opportunity to direct its multibillion-dollar spending on sports venues and related facilities toward the rebuilding and strengthening of downtown Atlanta and adjacent inner-city neighborhoods. Efforts included the construction of new affordable houses and apartments for rental and purchase. Similarly, Salt Lake City, **Utah**, used its hosting of the 2002 Winter Olympics as an opportunity to plan for metropolitan economic growth, with the Olympics also serving as a catalyst for the regional "Envision Utah" land-use, transportation, and environmental planning process. The metropolitan regions currently competing for the U.S. bid for the 2012 Summer Olympics—New York and the San Francisco Bay area—have clearly learned from Atlanta's and Salt Lake City's experiences. Each is planning to generate opportunities that view investment, employment, development, marketing, financing, design, tourism, transportation, and many other factors within the broader context of metropolitan economic strategies.

Special Obstacles in Multistate and Cross-Border Metropolitan Areas

One potentially very difficult obstacle and challenge for metropolitan economic strategies is insufficient intergovernmental cooperation when regions cut across the boundaries of two or more states. An example of effective coordination, built in the face of numerous ongoing conflicts, is the Port Authority of **New York and New Jersey**, whose Board of Directors is appointed in equal numbers by the two state Governors. The Port Authority has been operating since the 1920s and, as Princeton University Professor Jameson Doig documents in his recently published book, *Empire on the Hudson*, it has been very effective in mobilizing resources for metropolitan transportation improvements and economic development investments. These include building and managing modern seaport and other transportation facilities, such as containerized docks, bridges, tunnels, international airports, freight rail terminals, passenger rail and bus lines.

One potentially very difficult obstacle and challenge for metropolitan economic strategies is insufficient intergovernmental cooperation when regions cut across the boundaries of two or more states.

A recent example of effective bi-state economic cooperation is the East-West Gateway Coordinating Council in metropolitan St. Louis, which covers parts of both **Illinois** and **Missouri**. The East-West Gateway Coordinating Council, which is the officially recognized regional council of local governments and metropolitan planning organization for federal transportation funds, led the effort to plan and develop MetroLink, an 18-mile metropolitan light-rail transit line. Through its Transportation Corridor for Economic Renewal initiative, the coordinating council used MetroLink as the focal point for encouraging urban reinvestment and redevelopment around its stations. It worked to obtain public and private funding for three major programs covering job training and placement, transportation, child care, and post-employment counseling—the Regional Jobs Initiative, Bridges to Work, and Bridges 2000. These programs enable low-income residents living near MetroLink stations in St. Louis, Missouri, and East St. Louis, Illinois, to obtain jobs throughout the region and on both sides of the Mississippi River.

Across the state of Missouri, at its western edge, metropolitan Kansas City provides another recent example of bi-state cooperation, in this case between **Kansas** and **Missouri**. With energetic support from metropolitan business groups such as the Greater Kansas City Chamber of Commerce, from governmental entities like the Mid-America Regional Council, and from a variety of civic, arts, and philanthropic organizations, the Kansas and Missouri state governments authorized a bi-state cultural tax that was passed by voters in a metropolitan-wide referendum. The proceeds from this temporary sales tax increase helped pay for the cost of renovating the historic Union Station in Kansas City, Missouri. The station has been successfully transformed from a deteriorating former passenger railroad train terminal into a major regional cultural and entertainment center and tourist attraction, with restaurants, retail stores, movie theaters, and a new interactive museum called Science City. In addition, the metropolitan region worked together on the joint application to the federal government, which successfully obtained $25 million for an Enhanced Enterprise Community whose bi-state boundaries included low-income neighborhoods located in both Kansas City, Kansas, and Kansas City, Missouri.

A metropolitan region that encompasses more than two states can lead to even further complications in designing effective governance for metropolitan economic strategies. However, it is possible to work together effectively, as the Governors of **Arkansas**, **Mississippi**, and **Tennessee** clearly demonstrated through their cooperation in the successful economic strategy for metropolitan Memphis that will be discussed in the next section of this report. Another example is MetroTech, an initiative funded by the U.S. Department of Labor for metropolitan Washington, D.C., involving government cooperation between **Maryland**, **Virginia**, and the District of Columbia. MetroTech is focused on retraining workers, to provide them with information-technology skills, and then placing them in good-paying technology-oriented jobs. This unique partnership is led by the three Workforce Investment Boards representing Washington, D.C., and the Maryland and Virginia suburbs within a 50-mile radius of the city. It also draws on the expertise and active support of private employers by working closely with the Washington, D.C., Technology Council; the High Technology Council of Maryland; the Northern Virginia Technology Council; and the Greater Washington Board of Trade.

When regions cross national borders, metropolitan economic strategies become even more challenging to create and sustain. Until recently, U.S. regions had little experience with international metropolitan economic strategies. This has changed in the past decade because of the North American Free Trade Agreement and the development of closer business ties and the expansion of trade opportunities with Canada and Mexico. Metropolitan San Diego has developed several institutions to generate regional ideas and networking that will promote economic cooperation between the two nations. The San Diego–Tijuana Communications Council, led by a group of business leaders from both **California** and Baja California, is focused on building a cross-border, state-of-the-art information-technology and telecommunications infrastructure. San Diego Dialogue is a new group organized by administrators from the University of California at San Diego. Through various international committees, this regional group of experts is conducting forward-looking policy research, with a wide-ranging series of joint U.S.–Mexico economic and demographic analyses and recommendations, such as Planning for Prosperity in the San Diego–Baja California Region and the San Diego–Tijuana Economic Review and Forum.

V. Investing in Fundamental Assets and Building Dynamic Industry Networks: Keys to Metropolitan Economic Strategies

Formulating and implementing an effective metropolitan economic strategy requires focusing on two key elements:

- building from strength—investing in the region's fundamental assets and activities that will help fuel productivity and innovation; and

- generating dynamism—promoting modern, globally competitive industry networks that accelerate the pace of innovation and growth.

Building from Strength: Investing in Fundamental Assets

The heart of economic development is the management of the factors that attract and propel investment, trade, entrepreneurship, employment, production, and distribution.

The heart of economic development is the management of the factors that attract and propel investment, trade, entrepreneurship, employment, production, and distribution. The competitive advantage of metropolitan regions over rural areas is twofold: the existing population density attracts even more businesses and people; and a richly diverse range of highly specialized skills and available physical and human resources facilitates creativity, inventiveness, and a positive growth cycle.

The fundamental assets that can drive innovation and productivity include transportation and infrastructure, education and workforce development, research and technology, services and amenities, culture and recreation, environmental enhancement, and community improvements. These can be supplemented by strengthening the economic climate through promoting global trade and increasing market opportunities, expanding the availability of venture capital and other forms of business financing, encouraging entrepreneurship, providing investment incentives through tax policies and grant or loan programs, and streamlining regulations.

Because the competitive success of business increasingly depends on being knowledge- and information-based, technology- and communications-intensive, and globally oriented, the availability of skilled workers, sophisticated suppliers, broadband cable lines, research universities, international air service, good quality of life, and similar factors has become much more important than traditional economic concerns such as proximity to raw materials, low wage rates, or low tax rates.

Clearly, access to global markets and the ability to move goods, people, and information can generate growth, which is why investing substantially in airports, water ports, railways, highways, transit, bridges and tunnels, telecommunications facilities, and Internet capacity is essential. The **Illinois** Fund for Infrastructure, Roads, Schools, and Transit (Illinois FIRST), the metropolitan economic strategy for Memphis, and the **Connecticut**-led transportation investment proposal for the New England Governors' Conference, are a few good examples of enhancing transportation and infrastructure as fundamental assets for economic development purposes. Because transportation and trade services is also one of the most dynamic industry networks for job creation, investing in transportation and infrastructure provides the double benefit of boosting overall economic competitiveness and generating specific opportunities for business and job growth.

With the advent of Federal Express two decades ago, metropolitan Memphis, **Tennessee**, has become one of the world's premier distribution centers, whose fastest-growing industry network is transportation and trade services. This effort has involved investing heavily in the region's international airport as the hub of a global transportation system for trucking, rail freight, and air cargo that has generated over 30,000 jobs directly through FedEx, with thousands of additional, related jobs in the metropolitan area. Success in this massive effort at transportation and infrastructure improvement required regional cooperation from the public and private sectors in metropolitan Memphis, including civic leadership from regional leaders such as Shelby County Mayor James Rout and strong support from the state government in Tennessee. Once the economic strategy of becoming a world distribution hub succeeded, the region began to experience greater traffic congestion and other growth-related problems. Its location, where three states adjoin, and the need to coordinate highways, bridges, housing, and other needs across state boundaries, led to more active cooperation among the Governors of Arkansas, Mississippi, and Tennessee in planning for the future economic growth of metropolitan Memphis.

Governor George H. Ryan led the effort to establish **Illinois** FIRST, a $12-billion, five-year program to build, repair, and upgrade economically critical infrastructure, including roads, bridges, highways, mass transit systems, water and sewer systems, public schools, and "quality-of-life" projects such as parks and recreation facilities, as well as cleaning up brownfields and other environmental hazards. Similarly, the Connecticut Regional Institute for the 21st Century prepared a "strategic economic framework" in 1999 that helped serve as the basis for recent recommendations by the Transportation Strategy Board to Governor John G. Rowland and the state legislature on transportation investment. The overall investment strategy focuses on metropolitan regions and key transportation corridors linking **Connecticut** by land, sea, and air to the rest of the United States and the world. Governor Rowland, as Chair of the New England Governors' Conference, has been working with the New England Association of Regional Councils to propose a larger coordinated transportation initiative for all of the New England states—Connecticut, **Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont—**designed to improve economic competitiveness and based on strategic infrastructure investment in metropolitan regions and transportation corridors. Such a comprehensive approach includes airports, seaports, passenger and freight rail lines, highways, and cable and satellite telecommunications systems.

Another example of a major transportation investment making a region more economically competitive is **California's** Alameda Corridor, a $2.4-billion, 20-mile, grade-separated, high-speed "trainway and truckway" corridor. The corridor will enable double-stacked freight trains and huge tractor-trailer trucks to haul imported products from the Port of Los Angeles and the Port of Long Beach to the railroad freight terminals near downtown Los Angeles without stopping for cross traffic, and will enable trains and trucks to haul export products to the twin ports with equivalent efficiency and speed. By avoiding the transportation gridlock that currently impedes freight train and truck traffic to and from the two Pacific Ocean seaports in Los Angeles County, the Alameda Corridor will facilitate much more rapid and efficient cargo handling and shipping of goods across the nationwide network of rail lines and highways.

The Alameda Corridor, financed with federal, state, and local funds, and strongly supported by Governor Gray Davis, will greatly improve the position of metropolitan Los Angeles and southern California in the global economy when construction is completed. It is estimated to create over 700,000 new jobs. But what will it do for the urban areas immediately surrounding the corridor? To take full advantage of the Alameda Corridor and to ensure that economic benefits will flow to the corridor's host communities, 27 cities, with a combined population of over 2 million people, formed the Gateway Cities Partnership in 1997. These cities in southeastern Los Angeles County represent the traditional blue-collar manufacturing center of southern California. During the 1980s, however, they were hit by a wave of factory closings, and then defense- and aerospace-related firms were hit by federal military downsizing and budget cuts in the early 1990s. More plants were shuttered, with further loss of unionized industrial jobs.

The Gateway Cities Partnership views the Alameda Corridor as an engine of business investment and job growth. The partnership has organized a Transportation and Trade Cluster to expand opportunities in transportation and trade services and equipment. Together with California State University at Long Beach, the Gateway Cities Partnership created the Center for International Trade and Transportation, headquartered at the World Trade Center in Long Beach. The center promotes global trade for southern California firms, building partnerships with the International Longshoremen and Warehousemen's Union, fostering research and technology transfer in transportation logistics and equipment, and conducting training for technologically advanced careers through its Global Logistics Specialist professional certificate program. The Gateway Cities Partnership also received a $2.8-million grant from the U.S. Department of Labor to work with a consortium of community colleges and universities, plus private companies such as Delco Machine and Gear, to train prospective workers for jobs in computerized and precision machining. In addition, the partnership's Real Estate Recycling Team is utilizing federal, state, and local government programs to clean up environmentally hazardous brownfields sites and redevelop them for productive new industrial and commercial employment, a project closely tied to its business attraction and retention efforts.

In a knowledge- and information-based economic world, education and research are fundamental assets that can open doors to economic growth and vitality. **Kentucky** Governor Paul E. Patton's Knowledge-Based New Economy Initiative is a strategic use of a "human capital" strategy, focusing particularly on university-based instruction and laboratories to generate, attract, and expand high-technology businesses and industries. This initiative is coordinated by Governor Patton's Kentucky Cabinet for Economic Development, working closely with the state's two major institutions of higher education, the University of Kentucky and the University of Louisville. For example, the two universities and the state government are working to promote the biotechnology industry and made a coordinated presentation to the Biotechnology Industry Organization's annual international conference. The University of Kentucky highlighted its colleges of

Engineering, Pharmacy, and Agriculture, along with its 735-acre Coldstream Research Campus, while the University of Louisville emphasized its schools of Medicine and Engineering, plus its Health Sciences Research and Business Park.

Discussion is underway with **Ohio** to include the University of Cincinnati as part of Kentucky's Knowledge-Based New Economy Initiative, given that an important area of northern Kentucky is an integral part of the Cincinnati metropolitan region. Governor Patton has also focused efforts on increasing electronic commerce as part of his New Economy strategy. For example, Kentucky has recently attracted two large United Parcel Service (UPS) e-Logistics technology and distribution centers, one located in Louisville and the other 45 miles south, in Elizabethtown. UPS e-Logistics is an electronic commerce–based corporate subsidiary of UPS.

Similarly, the University of **Wisconsin**, encouraged by former Governor Tommy G. Thompson, has been playing a major role in working with the state government to foster education and research that encourages investment, income, and job growth in the New Economy. Vehicles included in this process range from scientific and engineering research and technology transfer, to the Business and Manufacturing Extension Service, to policy development and technical assistance institutes such as the Center for Economic Development in Milwaukee and the Center on Wisconsin Strategy in Madison. For example, the state Department of Commerce and the University of Wisconsin-Extension Small Business Development Center recently sponsored a joint research project on promoting entrepreneurial networks. They then used it as the catalyst for the Wisconsin Economic Summit hosted by the university, with a strong emphasis on expanding seed funding and venture capital investment for business startups in technology fields. Many other states also effectively utilize their public and private universities and research institutions as generators of technological innovation and as magnets for skillful and resourceful people.

Quality of life is an increasingly important fundamental economic asset because competitiveness in the New Economy now acknowledges that talented entrepreneurs and professionals can choose where they want to live and work. These highly mobile individuals and families are attracted to and retained by metropolitan regions with good housing and transportation, significant cultural and recreational amenities, vibrant community life, and an appealing natural environment.

Maryland Governor Parris N. Glendening's Smart Growth and Neighborhood Conservation initiative combines environmental and open-space protection with urban revitalization and promotion of livable suburban communities by reducing traffic congestion and other harmful effects of excessive sprawl. The initiative was the winner of the prestigious Innovations in American Government award from the Ford Foundation and Harvard University in 2000 and the focus of the National Governors Association Chairman's Initiative in 2000–2001. Governor Glendening clearly sees Smart Growth and Neighborhood Conservation as a strategy for promoting high-value economic development through improved quality of life, noting that Maryland's economy has made substantial gains in employment and income growth during the past few years. He cites the example of a young technology entrepreneur who located his fast-growing company in Annapolis—Maryland's state capital and home of the U.S. Naval Academy—because he enjoyed the combination of an urban environment with culture, night life, and historic architecture, together with abundant opportunities for boating and recreation on the Chesapeake Bay. This chief executive decided to provide two company-owned sailboats for his workers to use on their free time, as an innovative incentive that his firm successfully uses to attract and retain skilled employees.

Numerous other states, including **California, Colorado, Florida, Georgia, Maine, New Jersey, Oregon, Utah, Vermont, and Washington**, are taking comparable approaches, combining environmental and open-space preservation with metropolitan land-use planning, growth management, and urban reinvestment, as strategies for enhancing quality of life.

Indeed, preserving and enhancing a good physical environment is now essential to the long-run success of a metropolitan economic strategy. No region can compete globally and maintain itself as a center of innovation without attracting and retaining a highly skilled workforce. Places that offer a good environment and lifestyle—not only for working, playing, and raising a family, but also for visits by tourists, business executives, and conventioneers—will benefit substantially from their competitive economic advantage. Today's environmentalism and related movements for sustainable development, "smart growth," and new urbanism are more than just compatible with economic growth. Environmental protection and restoration are fundamentally necessary for generating prosperity in the New Economy. A persuasive case can be made for why a good environment and improved quality of life are now critically important for global economic competitiveness, and some mainstream economists, such as Michael Porter and Lester Thurow, strongly support this point of view.

Protecting and sustaining the physical and natural environment of a metropolitan region involves many different yet equally important actions. They include cleaning up and redeveloping brownfields sites; renovating historic structures; improving air and water quality; maintaining the beauty of natural landscapes; increasing the accessibility of pathways and open spaces; preserving agricultural land; curbing sprawl and traffic congestion by reinvesting in older towns, cities, and inner-ring suburbs; expanding transit and other pedestrian and transportation alternatives; promoting ecological and heritage tourism; developing "green" infrastructure; increasing recycling; using renewable energy sources and encouraging energy conservation; and generally strengthening community planning and design.

As the movement for environmental justice rightly argues, these needs are especially pressing for low-income communities, which are generally the most harmed by air and water pollution and exposure to a wide variety of harmful substances and unhealthy conditions. Metropolitan regions that have made environmental improvement and protection a centerpiece of their metropolitan economic strategies include Chattanooga, **Tennessee**; Denver, **Colorado**; Jacksonville, **Florida**; Portland, **Oregon**; and the San Francisco Bay Area in **California**. These strategies promote competitiveness in the global marketplace through attracting and growing cleaner industry networks in both manufacturing and services.

Promoting Dynamic Industry Networks

The second key element of successful metropolitan economic strategy involves promoting modern and dynamic industry networks (also called clusters) that accelerate the pace of innovation and growth. These networks are very broad agglomerations linking suppliers and distributors, designers and engineers, lawyers and accountants, and bankers and insurers with many other private, public, and civic organizations and institutions, business activities, and professional relationships that enable a field of production and investment to thrive. They typically draw on a wide range of private- and public-sector businesses and institutions that cut across the traditional narrow industry definitions of the North American Industry Classification System (NAICS) Codes, formerly Standard Industrial Classification Codes (or SIC Codes), developed by the U.S. Department of Commerce, Census Bureau.

The companies and organizations that constitute broad industry networks or clusters are generally located throughout an entire metropolitan region, from the downtown central business district of the major city to the outer edges of the suburban areas. These networks vary widely from place to place and include financial services, electronics and communications, entertainment and tourism, medical products, transportation equipment, industrial machinery, and numerous other fields of economic activity. A nationwide study by the U.S. Department of Housing and Urban Development in 1996 identified 18 key industry networks that were the engines of job growth and capital investment in America's 114 largest metropolitan regions.

Every jurisdiction must build on its existing strengths and create precisely targeted policies and incentives to generate investment and growth that makes the best possible use of its fundamental assets.

To grow industry networks or clusters effectively, strategies must be tailor-made for the asset base and business mix of each state and metropolitan region—one size definitely does not fit all. In this sense, the first key element—investing in the fundamental assets—and the second element—growing the dynamic industry networks—are deeply interconnected. Developing a comprehensive metropolitan economic strategy involves the specific interaction between these two elements. Major assets, such as international airports, universities, scenic waterways, or historic neighborhoods, can promote the growth of a variety of industry networks if planned and developed as part of an effective strategic framework. In turn, each industry network will draw on a wide range of different assets, with no two networks necessarily having the same needs and priorities, even in the same location. Every jurisdiction must build on its existing strengths and create precisely targeted policies and incentives to generate investment and growth that makes the best possible use of its fundamental assets.

It is important to emphasize that industry networks or clusters give regions a competitive advantage only if they are dynamic and growing. Competitive success in the New Economy comes only through fostering innovation and productivity. Industry networks are key elements of metropolitan economic strategy only to the extent that they can help generate rising incomes and employment through combining creative specialization with resource diversity. Simply identifying a state's or region's "clusters" will not do any good for strategic economic development if these clusters are unproductive, outmoded, or stagnating.

Industry networks that generate dynamic growth and expand the frontiers of global competitiveness can come from a wide variety of fields, involving both manufacturing and services, and older industries as well as newer ones. For example, the economic transformation of metropolitan Detroit and southeastern Michigan during the past two decades has been based on adapting the traditional automotive factory system to a more high-tech focus on automotive design, engineering, and advanced manufacturing. The **Michigan** Economic Development Corporation (MEDC) and other initiatives and programs funded by the state government and supported by Governor John Engler have targeted the attraction and growth of technology-oriented firms—from small startups and machine shops to large companies. These firms represent part of an industrial resurgence in the production of transportation equipment and related goods and services, generating positive results in terms of new investment and job creation during the past seven years. More recently, Governor Engler announced Michigan's NextEnergy initiative, a state-industry-university partnership to solidify the state's leadership in automotive innovation by positioning Michigan as a leading convergence center for alternative energy technology, research and development, education, and manufacturing.

Among its many activities, the MEDC operates a $1-billion Life Science Corridor initiative and organized the I-Team, a statewide technology industry association. In addition to life sciences, targeted industry networks include advanced manufacturing, information technology (especially electronic commerce, multimedia, Web design, and software) and emerging fields such as telematics, bioinformatics, and nanotechnology.

Metropolitan Detroit and southeastern Michigan are the main focal points for advanced manufacturing technology industry networks, including the IT Zone in Ann Arbor (home of the University of Michigan); Automation Alley in Oakland County, centered around Troy, Birmingham, and Royal Oak; the automotive industry-sponsored business-to-business electronic commerce activities in Wayne County, such as Covisint and ANX in Southfield; and the Campus Mauritius technology complex anchored by Compuware in downtown Detroit. Other areas of the state are targeting life sciences, information technology and alternative energy technologies.

Recently Governor Engler and the state legislature created the Michigan SmartZones program, whereby the state government enables metropolitan regions to focus on growing dynamic industry networks by investing more heavily in their fundamental assets at concentrated locations that help promote entrepreneurial and inventive activity. SmartZones are MEDC-designated, multi-jurisdictional, public-private-university partnerships focused on particular technology-oriented industry networks in 11 locations throughout the state. They permit property tax increment financing to raise public capital for local government investment in infrastructure (e.g., roads, water, sewer, telecommunications), property acquisition, and redevelopment of buildings into business incubators for technology firms, research and development laboratories, training centers, testing laboratories, and telecommunications centers. All of the SmartZones are located near major research universities to create a strong collaborative environment between businesses and higher education, and many of the zones are also situated in city centers, with urban revitalization being a key goal of the metropolitan region's advanced technology-based economic growth strategy.

In **Arizona**, Governor Jane Dee Hull's recently reorganized Governor's Strategic Partnership for Economic Development is focused on generating business and job growth by targeting 11 specific industry networks or clusters. In each case, state government agencies, such as the Department of Commerce, the Governor's Science and High Technology Council, the Arizona Space Commission, the Arizona Telecommunications and Information Council, and the Arizona Technology Incubator, have worked closely with the private sector to organize, strengthen, and publicize industry associations corresponding to the 11 industry networks, and have engaged in jointly supported marketing, research, financing, and public policy activities. The 11 networks are bioindustry; optics; environmental technology; high technology (combining aerospace and defense with computers, semiconductors, electronics equipment, and telecommunications); plastics and advanced composite materials; software and information industry; food, fiber, and natural products; transportation and distribution; tourism; minerals and mining; and senior industries (services for retirees).

Arizona's targeted industry efforts, like Michigan's, are essentially metropolitan economic strategies, because the Phoenix and Tucson metropolitan regions are the main focus of most of the 11 clusters. The Greater Phoenix Economic Council and the Greater Tucson Economic Council, working with key associations such as the Arizona Software Association, the Arizona Innovation Network, and the Information Technology Association of Southern Arizona, provide important metropolitan-level leadership in several of these efforts. For example, the Arizona Optics Industry Association is headquartered in Tucson. It represents more than 115 firms that produce precision measuring devices, telescopes, microscopes, fiber optic modems, optic software, and other goods and services linked to research and education at the University of Arizona's Optical Sciences Center, along with several world-class telescopes and astronomical observatories in metropolitan Tucson. The association's promotional efforts have been so effective that *Business Week* referred to metropolitan Tucson as "Optics Valley."

VI. Strategies for Center Cities

Comprehensive and effective metropolitan economic strategy necessarily involves central cities, both to maximize the cities' essential contribution to regional prosperity and to help spread the benefits of metropolitan wealth creation for the people who live and work in and near cities. Industry networks operate across metropolitan regions and always include significant business operations located inside cities.

The smooth functioning of metropolitan economies requires healthy central cities to serve as focal points for regional identity in the global marketplace.

The smooth functioning of metropolitan economies, with interrelated business activities involving thousands of private firms, public-sector organizations, and civic institutions, requires healthy central cities to serve as focal points for regional identity in the global marketplace. Cities, with their population density, transportation accessibility, extensive communications systems, available services, vibrant culture, historic character, and other valuable aspects of their unique combination of specialization and diversity, have traditionally been and still remain major sources of economic innovation and creativity. In the New Economy, cities will continue to play a vital role in ensuring that the region's businesses and job opportunities can compete in national and international markets.

Central cities in the metropolitan economy play seven key roles, serving as:

- centers of innovation and services, including advanced and highly specialized services;
- centers of culture, sports, arts, entertainment, conventions, and tourism;
- centers of education, research, and health care;
- centers of transportation and trade;
- centers of light manufacturing and technology development;
- market centers; and
- workforce centers.

America's cities simply cannot survive in isolation from their regional surroundings. Urban economies increasingly extend far beyond traditional city boundaries. Central cities, even the largest and fastest-growing ones, are physically constrained by artificial boundaries that divide them from the rest of their natural economic growth area, and they can revive or continue to thrive only by directly linking their future direction to the prosperity and competitiveness of the surrounding metropolis. Cities and older inner-ring suburbs can best succeed by working collaboratively with their regional neighbors, organizing coordinated public-private partnerships to develop and carry out metropolitan economic strategies that help expand the size of the overall regional economic pie. Central cities must then work to capture a larger share of that pie for their communities. Such strategies must include three major elements: building on the city's strengths, reinvesting in and repopulating the downtown and older neighborhoods, and connecting city residents to metropolitan area jobs.

Cities both currently possess and can create major assets to increase their competitiveness.

Build on the city's strengths in the context of metropolitan economic growth

Growing the city's key industry networks inherently involves strengthening the region's economic vitality. Cities both currently possess and can create major assets to increase their competitiveness. By doing so, they expand the overall metropolitan economic pie, even as they work to capture a larger share of that pie for city-oriented business activities. Most frequently, these are activities that utilize to best advantage the existing transportation and communications infrastructure, accessibility and centrality of location, urban-oriented lifestyle attractions, diversity and depth of experts and specialists, and quality of major knowledge-based institutions. Good examples of such city-suburban-exurban economic cooperation include the ways that metropolitan corporate leadership has come together to rebuild the central urban cores of Atlanta, Charlotte, Cleveland, Houston, Indianapolis, and San Diego in support of expanding regional prosperity and global competitiveness.

One useful case that illustrates this first element is the 1998 Strategic Economic Development Plan for Washington, D.C. Part of that plan created a dynamic new economic growth center within the city, designated "NoMa," shorthand for North of Massachusetts Avenue. Through successful implementation, NoMa is fast becoming a technology, media, and arts district, home of Cable News Network, XM Satellite Radio, National Public Radio, Black Entertainment Television, Gannett, and other media and technology companies, as well as art studios and galleries. This economic initiative was also known as Action 29, because development of the New York Avenue Metrorail Station is a key part of the overall project. To many people's surprise, the NoMa strategy won considerable support from information-technology and telecommunications industry executives and local officials from Washington, D.C. suburbs in Virginia and Maryland. They realized that the type of creative activities that would be attracted to, and incubate in, NoMa would otherwise go to urban neighborhoods in Chicago, Los Angeles, Miami, New York, San Francisco, or Toronto, not to the suburban or exurban areas surrounding Washington, D.C.

Such an unusual "win-win" consensus in a highly contentious multistate urban region led to further cooperation when the Washington D.C. 1998 economic plan wholeheartedly endorsed extending the Metrorail system farther into suburban Maryland and northern Virginia. City leaders recognized that expanding Metro not only will reduce suburban traffic congestion, but will also make business activities in Washington, D.C. more accessible for commuters, visitors, and tourists, and will make suburban jobs more readily available for low-income city residents.

Reinvest and repopulate downtown and neighborhoods

Rebuilding and repopulating downtown and older neighborhoods can best be accomplished by marketing the city's potential appeal to a wide range of businesses and residents from throughout the region and around the world. Such initiatives necessarily involve coordinated public and private investments and concentrated efforts to create or bring back commerce and jobs, high-quality stores and services, safe streets, good schools, and better housing and environmental conditions. They also require sufficient amenities designed to attract and retain corporations and enterprises and a critical mass and greater diversity of population at all income levels. Especially important are efforts to expand home ownership and create mixed-use, pedestrian-friendly, transit-oriented, 24-hour, livable communities, drawing on the ideas of new urbanism and related urban design movements. Urban community building is supported by various federal and state policies and programs, such as Empowerment Zones, Enterprise Zones, Homeownership Zones, and the Hope VI initiative. Hope IV replaces vacant and deteriorated public housing with healthy mixed-income neighborhoods and integrates low-income families into the broader fabric of metropolitan social life and economic opportunity. Many cities, from New York City to Kansas City, Boston to Boise, and Louisville to Los Angeles, are deeply engaged in these new forms of urban development and community building.

Connect city residents to metropolitan jobs

Successfully connecting low-income urban residents to suburban jobs requires targeted employment training and placement, transportation, child care, and other incentives and services that eliminate barriers to the smooth functioning of the metropolitan labor market. Such workforce initiatives help fill job shortages in the suburbs and exurbs by expanding opportunities for low-skilled people living in and near central cities, clearly a vital element of a good metropolitan economic strategy. Public and private investment in education, workforce development, infrastructure, and human services should include fully utilizing the social capital provided by community organizations, civic institutions, and faith-based groups. There are a growing number of programs designed to meet this important challenge, such as the Housing and Urban Development Bridges to Work effort, which provided training, transportation, child care, and other services to move thousands of unemployed inner-city residents to jobs throughout their respective metropolitan regions.

An excellent example of this strategy is Focus:HOPE, located in Detroit, **Michigan** at the epicenter of the 1967 riots. Focus:HOPE, originally a civil rights advocacy organization headed by a Catholic priest, has successfully educated thousands of disadvantaged low-income youth from the most troubled neighborhoods in advanced automotive and aerospace engineering technology and has placed them in high-paying jobs with manufacturing companies located in suburban communities throughout the metropolitan region. Other important programs include school-to-careers, welfare-to-work, the Annie E. Casey Foundation's Regional Jobs Initiative, the use of federal and state transportation and workforce investment funds for metropolitan job training and placement activities, and additional public-private partnerships being implemented in many metropolitan regions around the country. These include Baltimore, Chicago, St. Louis, Miami, Newark, Philadelphia, San Antonio, and San Jose.

VII. Conclusion

As Governors and state governments increasingly confront the challenge of improving state economic competitiveness and prosperity in a rapidly changing world of technological innovation, global trade, and investment, metropolitan economic strategy becomes a vital policy tool.

Because metropolitan regions are the main engines of jobs, business, and income growth in the New Economy, taking the initiative to generate metropolitan collaboration and teamwork that invests in the fundamental regional assets and grows the dynamic metropolitan industry networks is one of the most effective actions any state can take to benefit all of its citizens—in urban and rural areas, alike.

By approaching metropolitan regions as among the state's most precious and strategic economic strengths, Governors and state governments—working closely with local private, public, civic, and community leadership—can greatly enhance prosperity and quality of life within each metropolis and throughout the entire state. In addition, the federal government can and should play a supportive role in helping states and regions enhance their competitive advantages in the global marketplace. National prosperity and quality of life also depend largely on the economic performance of and strategic investments in the nation's states and, especially, the metropolitan regions within each state.