BENCHMARKING ECONOMIC DEVELOPMENT:

Regional Strategy in Silicon Valley, Austin, Seattle, Oregon and Cleveland

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INTRODUCTION

The fates of firms and regions are closely intertwined. Private investment creates regional development. Strong, vibrant regions provide the crucial inputs which firms require to grow and prosper. During the past decade, the business strategies pursued by successful firms have changed dramatically. Under the dual pressures of globalization and increased foreign competition, world class companies have increasingly adopted "high-performance" business and management strategies which emphasize the production and delivery of high-quality products, tailored to customer requirements at the lowest possible cost. While companies are actively engaged in the process of economic transformation, regions have struggled to meet the demands of world-class business organizations. Most regions continue to rely on traditional economic development strategies which were designed to meet the needs of traditional companies but increasingly fail to meet the needs of high-performance businesses. In recent years, a number of innovative regions have begun to develop new approaches and new strategies for the successful economic development in this new economic environment.

Perhaps, the most basic "law" of regional development is that private investment -- not government programs -- drives economic growth and development. Regional economic growth is a function of private investment, new business formation, business expansion and job generation. Thus, a successful regional economic development strategy must create the conditions that encourages private investment, business generation, and job creation. The
success of firms is a product of powerful visions and effective business strategies. The success of regions is a product of a regional vision and strategy that provides a framework or infrastructure in which firms are able to generate value, wealth and profits, and to reinvest that wealth into the potential for future growth. Simply put, companies that create wealth grow, those that fail to do so die. Similarly, regions that create wealth grow, while those that do not stagnate.

This paper explores "best-practice" regional economic development strategies in cities and regions throughout the United States. Benchmarking case studies were performed on Silicon Valley, Austin, Seattle, Oregon, and Cleveland, consisting of field research, site visits and extensive personal interviews. While some of these regional efforts are quite new, and have not advanced beyond the formative stage, together they provide a good example of the cutting-edge approaches to regional economic development.

FROM MASS PRODUCTION TO HIGH-PERFORMANCE ECONOMIC DEVELOPMENT

For most of the twentieth century, U.S. and Western European corporations have organized themselves along the lines of a broad approach to business and management that has been termed "mass production." The chief organizing principles of this mass production system -- pioneered by Frederick Winslow Taylor and Henry Ford include the functional specialization of tasks and the separation of conception from execution -- physical work and intellectual activities.

Regions in the United States grew up in support of this system of mass
production. In fact, the incredible strength of the U.S. economy for most of the
20th century was based in large part on the close fit between its organizational
imperatives of mass-production manufacturing and its regions. Until the late
1970's, the U.S. manufacturing economy grew by extracting natural resources
such as coal and iron ore, making materials such as steel and chemicals, and
manufacturing durable goods such as autos, appliances and industrial machinery.
Manufacturing regions, such as the Industrial Midwest, prospered because they
had natural comparative advantages that allowed them to be mass producers of
commodities competing largely on the basis of relatively low production costs.
The U.S. economy was bolstered and supported by regional systems that
supported mass production --- everything from roads, rails and ports to the land
grant post-secondary education system that grew up alongside and in support of
Midwest industry.

The dominance mass production in the U.S. has strongly influenced the way
businesses think about regions, and the methods used by regional and national
governments to stimulate economic growth. The mass production system tended
to neglect regions. Physical proximity was not an essential aspect of organizing
business activities. In fact, since the production processes were often highly
subdivided into discrete pieces, each piece was sited wherever input costs (i.e.
land, labor, taxes, etc.) are cheapest, or where specialized inputs can be obtained.
Geographers refer to this as a "spatial division of labor." Consequently, many
mass production companies have discrete pieces of their businesses spread out
over great distances. The only specific concern about regions comes in the form of efforts to minimize the costs of transporting intermediary and final products from one site to the next, and to final customers. Local and regional governments have responded to the demands of mass production by competing with each other to offer the lowest-cost inputs. Low-interest loan programs, skill-specific training programs, inexpensive real estate, direct grants, and favorable tax treatments have all been essential ingredients of local and regional economic development strategies for decades.

The competitive pressures faced by many major corporations since the late 1970s has led a substantial number of them to conclude that mass production is no longer the most effective way to organize themselves. Since the mid-1980s, corporations have begun adapting their own business strategies to which can enable them to compete more effectively against both domestic and foreign competitors. Although most business leaders had long known that Japanese companies organized their business operations very differently, those differences were attributed to variations in culture. But, since the mid-1980s, the "Japanese" management organization has been transplanted successfully to the U.S. through transplant companies and U.S.-Japanese joint ventures in industries ranging from steel, to automobiles to consumer electronics.

Over the past few years, industry has begun a process of sweeping transformation -- in a move toward world-class high-performance manufacturing. Driving this transformation is a growing beach-head of world-class companies --
Xerox, Steelcase, Motorola, Ford, Corning, along with Honda, Sony, Matsushita, and Robert Bosch to name just a few. This new high-performance system harnesses the knowledge and intelligence as well as physical labor of all workers from the R&D lab to the factory floor. High-performance manufacturing firms compete on quality in global markets, organize work in self-managing work teams, and are strongly committed to continuous improvement and organizational learning. High-performance production complexes rely upon just-in-time supplier and customer interactions to enhance innovation and produce the state-of-the-art products the world wants.

High-performance companies have acted as a powerful orienting force in regional transformation. Larger companies play the role of "hubs" for modernization of the region's small and medium-sized manufacturing base. These hub companies are investing in workplace restructuring, total quality management and supplier modernization at levels that dwarf current or projected government outlays in these areas. High-performance companies have also pioneered new models for investing in education, training, and the broader infrastructure required to support a high-performance economy.

TH ROLE OF REGIONS IN HIGH-PERFROAMNCE ECONOMIC DEVELOPMENT

Regions figure heavily in high performance development. High-performance firms rely heavily on their customers and their suppliers to provide direct input into R&D, design, production and follow-up service. In production, for example, many high performance manufacturing firms are capable of operating true Just-in-Time
production cells. Physical proximity to other firms, therefore, is essential for obtaining a flow of continuous input, and in the case of physical production a continuous flow of parts.

High-performance firms tend to create hubs around themselves comprised of suppliers and customers. As these hubs grow, they can dramatically define the region they inhabit. In some cases the hubs and the region can themselves become inseparable. Firms within the hub could not thrive without the presence of the leading firm(s), and the leading firm(s) could not thrive without the surrounding hub.

As more large companies in the U.S. switch their organizing paradigm from mass production to high-performance, they are discovering (and in some cases rediscovering) a greater interest in the regions that surround their major facilities. This rediscovery of the importance of regions is spawning a series of new regional economic development initiatives. Although major U.S. companies have always supported local and regional civic economic development efforts, such support has often derived from corporate interest in being perceived as a "good citizen." The movement toward high performance, however, brings regional interests closer to what companies need to implement their own business strategies.

In any regional system, firms rely on the region for trained labor, market access and feedback, communication and transportation infrastructure, a strong technology base, and government incentives and support for industry. A high-performance region is comprised of an integrated system of business and
government institutions, high-quality labor, low labor turnover, education and training related to work, and dense inter-firm linkages. A high-performance region is characterized by business-government relations which support, rather than impede, the transition to the new economy.

This puts the burden on regions to transform their manufacturing infrastructure to be an attractive, supportive environment for high-performance firms. The role of public policy in this new environment must be to develop and sustain an institutional framework that can facilitate the shift to this new production system and, just as important, to eliminate any remaining public and regulatory barriers which inhibit the emergence of this new model. New public policies and strategic investments are required to simultaneously shape and expand the evolution of the high-performance model of production organization.

High-performance regions possess a basic set of interrelated ingredients that constitute a production system. They all have a manufacturing infrastructure—a group of firms that produce goods and services. The core of the high-performance region is comprised of a number of firms whose structure, production processes, and delivery systems are radical departures from mass-production techniques. Contrary to the multi-divisional form, larger high-performance manufacturers play the role of a hub, surrounding themselves with a spoked network of customers and suppliers in order to push innovative capabilities and costs as far down and away from the top of the institutional hierarchy as possible. Within company walls, one finds not only the most advanced technologies and monitoring systems, but also
self-managed, cross-functional work teams of managers, engineers, and production employees that seek continuous manufacturing process and quality improvements. As the high-performance hub system is based on co-dependent customer-supplier relations, firms challenge old production tenets by ensuring input specifications and delivering what its end users need, rather than "selling what they make."

High-performance regions have a human infrastructure—a labor market from which firms draw able-minded and -bodied workers. At the root of a high-performance region’s labor market is an education and training system whose workers’ skills and overall intelligence level should be attuned with the technical and managerial requirements of high-performance manufacturing. This means that workers’ learning and application abilities must be of higher quality before entering and continuously embellished within the production process. This strengthening of intellectual inputs is executed on a variety of fronts. Students in high-performance regions typically demonstrate a higher proficiency across all grade levels. Upon entering secondary schools students, with the cooperation of industry and government, may enroll in vocational apprenticeships that expose them to high-performance manufacturing and management systems. Once such multi-skilled workers begin full-time employment, they are ingrained with quality-based training and are better prepared to operate productively in cross-functional work teams. Essentially, firms first define their workforce requirements and solicit the cooperation of educational institutions in developing and deploying desired skills. Without adequately skilled managers, engineers, and production workers, advanced
technologies cannot maximize their utility nor can they be improved to meet and beat new inter-industry and international challenges.

All regions deliver their goods and services and communicate with multiple entities via a physical and telecommunications infrastructure. High-performance manufacturing draws a great portion of its power from the rapid and constant sharing of information between customers and suppliers. From charting production schedules to maintaining machine efficiency and from analyzing cost data to coordinating marketing strategies, telecommunications networks are undeniably a prime source of competitiveness in this "Information Is King" age. Properly developed and financed telecommunications networks thus translate into firms' ability to maintain their competitive advantage by remaining at or ahead of the pace of industry and international competition.

To ensure growth of existing firms and birth of new ones, each has a capital allocation system and financial market. One of the existing weaknesses in the U.S. is that financial systems are creating impediments to high-performance. For example, the results of field research indicate that banks in the Region often require inventory as collateral when high-performance seeks to limit holding costs to their bare minimum.

There is a definite need to create an institutional environment that is conducive to and supportive of the change to high-performance -- not just immediate changes, but an on-going capacity to react and adapt to changes in the global marketplace. This will entail changing the focus and structure of some
existing institutions that were designed to promulgate traditional mass production, and admirably did so for many decades. These institutions must turn their attention to promoting the inputs needed by high-performance manufacturers. New institutional forms may also be required to fully prepare the landscape for high-performance.

To summarize, high-performance regions provide the crucial inputs required for high-performance manufacturing to flourish. These inputs include: a manufacturing infrastructure of interconnected vendors and suppliers, a human infrastructure of qualified workers, engineers, and researchers, a communications and transportation infrastructure which facilitates constant sharing of information and just-in-time delivery of goods and services, and a capital allocation and financing system attuned to the needs of high-performance manufacturers. New partnerships among business, labor, and government will be required to provide these crucial inputs -- to develop the broader political economy which can support the shift to high-performance.

The following pages explore regional development strategy in five regions: Silicon Valley, Austin, Seattle, Portland (and Oregon more generally), and Cleveland.
JOINT VENTURE SILICON VALLEY:
From a Region of Entrepreneurs to an Entrepreneurial Region

Silicon Valley California certainly ranks as one of the largest concentration of technology-intensive growth companies in the U.S. and the world. The extraordinary growth of the Valley’s economy in the last twenty years is well documented. However, in recent years, however, Silicon Valley’s position as the global technology leader has been increasingly threatened. While Silicon Valley’s growth outstripped the larger Bay area and nation as a whole in the rate of job growth from 1972 to 1984, this prominence changed as the Valley grew noticeably less than both the Bay Area and the United States from 1984 to 1991 (.7% versus 1.9%). This economic decline was complicated by a number of additional problems:

- a decline in the annual number of new business formations and an increase in the number of bankruptcies
- a high employee turnover rate
- housing affordability/availability pushing residents out of county
- increasing environmental problems

In response to these problems the region’s industrial leaders formed a new effort, Joint Venture: Silicon Valley (JVSV) in January 1992. Joint Venture is an industry-led coalition of private corporations, public officials, educational institutions, and social service programs. Their aim is to create the first regional development strategy for the Silicon Valley area, by turning a "region of entrepreneurs into an entrepreneurial region. In doing so, they hope to revitalize the local economy and build on the advanced technology strengths of Silicon
Valley in order to reverse the trend of businesses expanding or locating in other regions. Joint Venture's inception can be attributed to a small group of the largest companies in the Valley, including Applied Materials and Silicon Graphics. The prime movers behind the effort are the CEOs of these two companies. Other companies have been involved, though less active, in this effort. The chairman of the group is Thomas Hayes of Applied Materials. Despite the fact that each of these companies has R&D and production facilities in other growing "high tech" centers, such as Austin, Texas and Portland, Oregon, which theoretically could grow just as well as their Silicon Valley sites, each firm has concluded that it has a unique stake in Silicon Valley. The nature of their continuing interest in the fortunes of Santa Clara County reveals a fundamental shift in the underlying philosophy each firm is using to craft its own strategy for commercial exploitation of advanced technology.

Joint Venture, to some extent, reflects an underlying shift in the management strategies of leading Silicon Valley companies. In particular, the lack of a coordinated regional strategy and the high turnover rate of both professional and unskilled workers have become rather acute problems for firms seeking a stable production environment. Years of rapid, unplanned, cannibalistic growth in the region had made Silicon Valley inhospitable to the kinds of inputs needed for high performance companies. The key input is labor, which needs to be capable of coping in a business environment where both mental and manual skills are integrated. Production workers need to be able to seek opportunities for
continuous improvements to production processes. Managers, designers and engineers need to understand the manual processes of production in order to meet customer expectations. Without skilled labor, available at reasonable rates

To achieve this goal, Joint Venture developed a four phase workplan with the consulting help of Stanford Research International (SRI) and set about expanding membership and gathering community support. The philosophy behind the project is to turn "the Valley of entrepreneurs into the entrepreneurial Valley," a slogan which captures the collaborative nature of this effort and the underlying interdependence of those involved. A fundamental understanding behind the project is the changing nature of economic development, and the belief that long term success lies in forging linkages between suppliers, customers, business, government, and the community. These linkages are key to both the future health of local firms and the region, as individual business strategies regarding new technology are very closely tied to the success of the region as a whole.

Phase I of Joint Venture: Silicon Valley, which was completed in the first six months of 1992, provided a detailed assessment of the state of the economy in the Valley, including surveys of businesses and residents. The report, "An Economy at Risk," reveals that Silicon Valley's problems began years before the recession hit, indicating deeper, regional causes for the economic slump. This first phase report was then used to gain support from a wide array of business and community leaders who gathered to hear the results of the Phase I in June 1992. The report does not attempt to offer solutions to the problems it identified; rather,
the intent was to get everyone to recognize that there is in fact a serious problem facing Silicon Valley and to motivate the community to focus on that common problem. In doing so, Joint Venture aims to "build a competitive advantage for Silicon Valley by building a collaborative advantage." (Hayes, San Jose Mercury News, June 24, 1992)

Phase II of Joint Venture focussed on developing specific recommendations for correcting the regional problems identified in Phase I. It also marked the beginning of active participation of the public sector, joining the coalition after private industry was organized. Membership is open; the coalition includes local, regional, and state politicians, labor unions, professional associations, lawyers, real estate developers, and others who chose to be involved. Corporate sponsors alone number more than 65. As a broadly based public-private partnership, Joint Venture Phase II intends to pursue a wide range of initiatives, including many traditionally shunned by the private sector. The mission statement of Phase II is "to develop and launch a collaborative strategy to compete in the global economy and create balanced economic growth, increasing individual prosperity and a high quality of life."

The actions of Phase II will be centered around four overarching goals, intended to address many of the problems identified above:

1). A more attractive environment for business and industry.
   • "just-in-time" permitting to streamline the regulatory environment

2). Diversification of current skills and technologies into new business and product lines.
   • new research consortium for flat panel displays.
3). Closer collaborative relationship between the public and private sectors.
   • new education initiatives.

4). Sustainable balance between a healthy community and a healthy economy.
   • appropriate environmental regulations

The Phase II approach to these challenges was structured into three broad
groups which meet over a nine month period to develop solutions for specific
issues facing the Valley. These groups were divided into smaller working groups
as follows: Four Leadership Groups, including a Board of Directors (industry
associations and corporate representatives), Board of Advisors (senior corporate
executives), Public Sector Roundtable (mayors, county supervisors, state and
federal legislators), and Working Group Chairs (Co-chairs from 14
industry/infrastructure working groups). Eight Industry Working Groups were also
organized by major industry clusters: computer and communications equipment,
software, semiconductors, space and defense, biotechnology, environmental
technology, business services, and emerging technologies. In addition, six
Infrastructure Groups were organized around major community issues: such as,
technology, education and workforce, capital and new business formation, tax and
fiscal policy, regulatory climate, physical environment,

Starting in the fall of 1992, each set of groups was slated to meet for six
months to develop a common vision and strategies for future development in their
area, at the end of which the results would be presented in a public forum. Each
group includes representatives from both public and private sector concerns;
throughout the process the emphasis is on comprehensive problem solving that
sets aside parochial issues. This is facilitated by the adoption of a shared vision for both the region and the role of Joint Venture. The next three months were reserved for implementation teams to create an "overall regional blueprint."

Simultaneously, the Leadership Group scheduled a series of workshops focused on priority issues identified by the industry and infrastructure working groups. Three to five "Flagship initiatives" of major public-private activities would result from these workshops, addressing community issues and strengthening the region’s ability to face broader future challenges. Flagship activities would be Valley-wide in scope. The 1993 end of Phase II would yield:

- A Blueprint for Silicon Valley that includes Vision, Strategies, and Initiatives.
- Step-Phase Initiatives of immediate actions resulting from the collaborative working process.
- Flagship Initiatives (4-6) organized around public-private implementation teams
- Industry Initiatives organized around industry cluster groups.
- Infrastructure Initiatives organized around infrastructure issue groups.

Preliminary proposals covered a diverse range of issues, corresponding to the many topics addressed by the working groups. Over 40 projects were generated by Phase II, ranging from a resource guide for local startup software companies to an electronic clearinghouse for environmental regulations to streamline the industrial permitting process, or a Silicon Valley Housing Council to coordinate regional housing provision. While plans are still being developed to translate some of these ideas into action, the major initiatives are in place. Each
proposal follows an standard format which addresses issues such as project justification, resources required, action plans and milestones, and unresolved questions. The proposal must also identify an organization and/or leader to "champion" the project and oversee its development. Most initiatives can be implemented by existing organizations, but where necessary, new organizations can be created to support the projects. Resources and support will come from the Joint Venture organization.

One of the first proposals to be implemented as a result of Phase II is 21st Century Classroom, designed to prepare local students for the workforce of the next century through training in technology and computer skills. The program was announced by San Jose Mayor Susan Hammer in early 1993, and reflects the success of Joint Venture collaborative efforts, representing a partnership among the City of San Jose, the three city school districts, and local businesses. Seed money comes from the city, donating $1 million over the next two years, followed by support from major companies such as Tandem Computers, Hewlett-Packard, and Pacific Bell—all members of the newly created Technology Skills Task Force. The program includes increased training for both teachers and students in the use of computer skills, as well as broader problem-solving and team development issues. Schools will be equipped with appropriate hardware and software, including networked resources when possible. Further, businesses will be encouraged to offer apprenticeship programs and other hands-on opportunities for high school students. Education was identified by several Joint Venture working
groups as a top priority in revitalizing the Valley; this program could eventually link
with several others being developed by Joint Venture.

Joint Venture is still in the early stages of implementation. Nonetheless, it
offers a promising beginning for sustained economic growth in the region. It has
already achieved a significant level of private sector organization and cooperation--
a strong foundation on which to build future efforts.

**AUSTIN: TECHNOPOLIS AS AN ORGANIZING PRINCIPLE**

There is no question that Austin’s economic development over the past
decade has been impressive. Over the past two decades Austin has created
thousands of manufacturing jobs, and its population has grown rapidly. While the
commonplace impression is that Austin today is an integrated high technology
economy, our finding, which was affirmed by the leading members of Austin’s
business community, is that Austin’s economy is in fact comprised of four
separate economic bases: the University of Texas, Texas state government,
technical branch plants, and high technology R&D entrepreneurs.

Austin’s historical economic base revolves around the University of Texas
and the state government. These two sectors continue to be the region’s largest
employers, and the largest sources of income for Austin residents.

Beginning in the late 1960s Austin began to attract technical branch plants
from a number of leading computer and advanced electronics corporations such as
IBM, Motorola, Texas Instruments and more recently, Lockheed and 3M. For the
most part these plants are focused on assembly and manufacturing operations, with a small number of supplemental product development engineering staff concerned directly with these operations. 3M is the only major exception here, with its recent relocation of a number of high-level corporate R&D and administrative functions.

Within the past five years, Austin has supplemented its technical branch plant economy with recent additions from the Silicon Valley, such as AMD and Apple. Here Austin has benefitted from the general trend of companies relocating away from the high-cost, high labor turnover environment of the Silicon Valley. Other beneficiaries of this trend include Portland, OR and Seattle, Washington. Austin has been able to capitalize on this shift away from Silicon Valley because of its earlier development as a technical branch plant economy with the requisite labor force and business services.

Our interviews indicate that while these technical branch plants are an important source of income for Austin residents, their impact on the business community is limited because most business decisions, including the purchase of top level business services, occurs elsewhere. Austin lacks the headquarters functions and the world-class complex of service providers that characterize major metropolitan business complexes of the sort found in cities such as Cleveland or Pittsburgh.

Over the past decade Austin has increased its base of R&D activity substantially by successfully attracting two major government funded university-
industry research consortia. Austin’s ability to attract these consortia was due in large part to the university’s extraordinary ability to provide matching funds (more on this below). Quite recently, and in response to the rigidity of the large companies and the university base, there has been a concerted effort to generate high technology entrepreneurship in the Austin area. This effort has been led by: George Kozmetsky and the IC2 Institute; key leaders of the Greater Austin Chamber of Commerce; and key faculty and administrators at the University of Texas. High tech entrepreneurship has generated a few well-known success stories, such as Dell Computer, CompuAdd. These companies have been able to leverage the electronics base created by the technical branch plants, the major government installations, and the university’s heavy investments in its capabilities in these areas. Most recently, this effort has revolved around the Austin Technology Incubator, which today houses around two dozen high technology companies of various sizes. While the ATI has been success, it should be noted that earlier efforts to set up incubators in Austin were not successful.

A crucial and unique component of Austin’s development has been the University of Texas. The university is an omnipresent force in Austin’s civic structure. It produces tens of thousands of technically trained graduates each year, and its own payroll virtually sets the parameters for the region’s workforce and consumer base. But most importantly, the university’s $4 billion endowment, which comes from oil leases on university property, allows the university to make heavy direct investments in regional economic development, and to leverage even
larger sums of private and federal government investment. For example, the university provided both the land and the buildings for both MCC and Sematech, and supplemented this with major investments in its computer science and electrical engineering units. One part of this effort was the establishment of 32 new endowed chairs in these and related activities.

While Austin’s economic development effort deserves high praise for its successes, a number of serious problems were highlighted in our interviews. Simply put, the incredible pace of Austin’s development generated a number of problems for local business interests, and for the general growth process. The first problem was that regional leaders began to believe their own public relations (i.e. that Austin was a futuristic technopolis) and they overbuilt the Austin market. The effort to win MCC created widespread excitement about Austin’s potential for future spinoffs. This climate attracted virtually every major provider of top-end business services to open offices in Austin. However, the region’s limited branch plant economy, and its vital, but very small, entrepreneurial sector simply could not support these investments. The result was a real estate collapse that devastated Austin’s business interests. Although Austin would have suffered in the general collapse of the Texas banking industry anyway, our interviews indicated that the magnitude of Austin’s problems was increased substantially by the "feeding frenzy" of high tech expectations. Virtually every major new real estate development in the region, went back to its original lenders in the late 1980s. In addition, not one locally controlled bank survived the shakeout. The result today is
a shell-shocked real estate market, which makes it virtually impossible to finance projects that are otherwise sound. For example, Austin just lost out in a bid to capture the headquarters for Southwestern Bell because it was impossible to assemble 200,000 square feet of contiguous space from existing inventories, and no financing for new construction is possible.

The second major problem is environmental decline. Austin’s rapid growth rate has created a serious political backlash against future growth because insufficient attention has been given to the environmental consequences of growth. The most visible example is Barton Springs, a naturally fed "swimming hole" that closes periodically due to contamination from pollution runoff from nearby commercial, industrial and residential developments. The growing political power of the "no-growth" coalition is already a major barrier to future growth.

A key to Austin’s economic development effort is the unified front and coordinated effort Austin projects to potential new investors in the region. Austin’s unified front is not the result of any single organization. It results from the willingness and the capacity of various organizations to share a common vision and to successfully cooperate and coordinate their own efforts to achieve the common goal of encouraging Austin’s growth.

The key players in Austin’s civic economic development infrastructure include: the Greater Austin Chamber of Commerce; the Chancellor’s Office of the University of Texas; a select group of key UT faculty (such as Ben Streetman and George Kozmetsky); and state government officials, (particularly from the former
governor’s office). The key event that galvanized this group into a growth coalition was the MCC recruitment. The Austin growth coalition is not a formal organization, although it makes use of the Chamber’s staff on occasion. It is a powerful network of key individuals who put their own efforts directly into regional economic development initiatives.

Interestingly, many high profile individuals in the community such as the late Robert Noyce, Craig Fields, etc. have not played a direct role in Austin’s economic development infrastructure. Rather, they provide essential national contacts, and occasional national visibility to key initiatives generated by the local Austin’s infrastructure. They respond to specific requests from local leaders routinely.

Austin’s growth coalition continues to coalesce around various prospecting trips to Silicon Valley and elsewhere. These trips, however, are not seen as recruitment missions. Rather, they are seen as "customer service" trips to visit the home offices of businesses who already have some investment in the Austin area. This base of "existing clients" is used to identify and target new opportunities for Austin. These trips also allow Austin’s civic and business community to build a common understanding and to reinforce their common efforts.

One additional crucial aspect of Austin’s growth coalition is a common perception, and a common understanding, of Austin as a so-called "technopolis". Although the strength of this vision exacerbated the region’s real estate troubles in the 1980s, it is a powerful element in holding the business community together. This common vision is linked directly to university research efforts in economic
development, particularly the research of the IC2 Institute, which provides continuous benchmarking for regional economic development efforts, both domestically and worldwide.

It needs to be noted, however, that the Austin economic development effort is not completely unified. Three smaller networks of key individuals have emerged separately from the Greater Austin Chamber of Commerce: an African-American chamber of commerce; and hispanic chamber of commerce; and a newly created network of high technology entrepreneurs who have organized around environmental activism. Each of these groups does perceive Austin’s basic growth coalition as its agent. These fissures have the potential for major problems in the future.

SEATTLE: A GLOBAL CROSSROADS

Seattle is a heavily export-oriented region with a growing high technology manufacturing base. A number of successful software firms, including Microsoft and Nintendo provide stability and growth. The long-time economic bastion of the region has been and remains The Boeing Company, the world’s largest airframe manufacturer, and one of the largest employers in the region. Boeing dominates the region’s export economy with approximately $15 billion in exports in 1991, though the rest of King County (Seattle) itself (excluding Boeing) exported $1.6 billion. The creation of a regional consensus that the future of Seattle lies in value-added international trade is one of the city’s greatest strengths; this shared vision
has allowed Seattle to manage a decentralized civic structure without creating an unworkable tangle of competing agencies.

The civic structure of Seattle is indeed complex and highly fractured. In addition to a myriad of city and county planning agencies with independent agendas, numerous economic development organizations sponsor individual programs, all with little coordination among initiatives. Several of these groups are quite active; for example, the Greater Seattle Chamber of Commerce, The Trade Development Alliance of Greater Seattle, the Port of Seattle, and the Washington State Department of Trade and Economic Development, all have ongoing development initiatives. However, in Seattle’s current context of economic stability and security, there is little impetus towards the regional collaboration necessary to make more than marginal improvements in the region’s economic structure. Compounding this is the relatively low profile of the region’s largest private firms; while supportive of public sector initiatives, they are not active participants in economic development. Although a strong base for several high technology firms, and a growing center of venture capital, Seattle has not become a high performance region.

Efforts to spark a regional transformation into a high performance environment have been undertaken, though with limited success. In 1988, the state of Washington began to formulate a state-wide economic development plan, entitled "Washington Works Worldwide: Positioning Ourselves in the New Global Economy." The report was prepared by the State Economic Development Board, a
promising coalition of public and private leaders and chaired by the governor. The Board began developing a long term economic strategy for the state, recommended key areas for action to improve development across the state, but implementation has lagged with no standing group to spearhead the effort.

In response to similar issues, groups within Seattle's public sector have taken steps to exploit the city's role in international markets and the growing global economy. The city itself has not been a mayor player in developing this strategy. However, as a direct result of coordinated, focused efforts to redefine the region’s focus for future economic vitality by organizations such as the Chamber of Commerce and the Greater Seattle Trade Development Alliance, the city is well positioned for international trade. Trade plays a vital role in the Seattle regional economy; one estimate attributes as many as one in every five jobs in the region directly or indirectly to international trade. (Nation’s Cities Weekly, 2-8-93)

The Trade Development Alliance of Greater Seattle was created in 1991 to coordinate the promotion of Seattle in international markets. Chaired by an executive board composed of the mayor of Seattle, King county executives, city and county council members, port commissioners, and public and private leaders, and closely tied to the Chamber of Commerce, the Alliance now has more than 140 member companies and has become a true public-private partnership. The focus remains on making the Seattle region "one of North America’s premier international gateways and commercial centers." (Alliance mission statement)

The Alliance is predicated upon the idea that regional economies are fast
becoming the unit of competition in an increasingly global environment. To this end, the Alliance has not adhered to existing geographic and political boundaries, but is considering the entire Seattle-Tacoma regional economy and resources in its plans. The first action of the Alliance was to define the region's global markets and develop marketing material accordingly. Based on an international market report which studied King County exports, leading port customers, foreign tourism, and foreign investment, the Alliance selected priority markets. Thus, initial promotional efforts are aimed at Taiwan, Hong Kong, Korea, Indonesia, Malaysia, Singapore, and Mexico.

To forge relationships with these and other locations, the Alliance (in conjunction with the Chamber of Commerce) created the "outbound mission" program to coordinate visits and meet local leaders and entrepreneurs. These Intercity Visits are conducted by a large and diverse delegation from Seattle, including both civic and business leaders, and representatives from regional small businesses. To date, more than ten such visits have occurred, including trips to Hong Kong, Amsterdam, Atlanta, and Pittsburgh. The purpose of the visits is to compare Seattle with its competitors and learn from what other location are "doing right."

The Trade Development Alliance is one example of a successful civic group within the larger galaxy of organizations in Seattle; more such examples exist, linked by a view of Seattle as the crossroads of international trade, yet limited in scope due to the lack of a regional high performance environment.
PERFORMANCE-BASED ECONOMIC DEVELOPMENT -- "OREGON SHINES"

Oregon has become the nation’s leader in the use of benchmarking as a tool of economic development and to enhance government performance more broadly. The state implemented a major statewide economic development initiative in June of 1988 under the leadership of Governor Neil Goldschmidt. Oregon has long depended on its natural resources, particularly timber, to provide jobs and wealth, but significant declines in this industry have prompted a need for greater diversity in Oregon’s economy. Coupled with this decline, Oregon was hard hit by recession during the 1980s, to the point where per capita income in the state fell 8% below the national average and has not recovered. Recognizing the need to build the state’s capacity for long term, well managed growth and improve competitiveness in an increasingly global economy, the Governor began to create a common vision for the Oregon of the next century. This state-sponsored effort, "Oregon Shines," brought together leaders from across the state in both the public and private sectors, who were asked to contribute their knowledge to create a 20 year strategic plan for Oregon. Fundamental to implementation of their initiatives is the understanding that progress needs to be a cooperative effort; not only should the state make the actions recommended in "Oregon Shines" a top priority, but business, labor, educators, and local groups alike must all be engaged in the program.

Under the auspices of the Governor’s Office, 16 broadly-based committees were formed to participate in defining a direction for Oregon’s economic future.
The committees were organized into groups along two major themes, Industry Advisory and Policy Issues groups, to achieve a broad perspective on activities within the state. The industry groups represent a cross section of major industries in the state, both well established and rapidly growing, such as software, high technology, plastics, and biotechnology. A group also represented the interests of small businesses. These Advisory Groups were asked to examine the business climate of Oregon and recommend actions aimed at improving the state's competitiveness related to both the overall economic climate and industry-specific improvements. The Policy Issues groups focused on issues affecting economic performance across industries, such as education, international trade, and state and local partnerships.

The results of these committees form the foundation of "Oregon Shines," along with input from the state Department of Economic Development and the Governor's Office. This strategic plan sets forth a vision for the future of Oregon built around well-paying, productive jobs and increased participation in the international economy, while managing growth to protect the environment. This vision is reflected in the three strategic Key Initiatives and three Support Initiatives developed in "Oregon Shines" as the framework for future action. The Key Initiatives are:

- A superior work force. Oregon will commit itself to provide the best educated and trained work force in the United States by the year 2000, and a work force competitive with any country in the world by the year 2010.

- An attractive quality of life. Maintain Oregon’s natural environment and uncongested quality of life to attract the people and firms that will drive an
advanced economy.

- An international outlook. Create an international orientation in Oregon’s business and cultural life that distinguishes Oregonians as unusually adept in global commerce.

Each Key Initiative is more fully mapped out with subgoals; for example, the work force goal is supported by specific programs for improving the public school curriculum regarding math, science, and foreign language skills, and creating stronger ties between business and education to ensure that continuing education and retraining needs are met. A common theme supporting each Key Initiative is the idea of collaborative programs providing the basis for action. The work force initiative will begin with a coalition of leaders from education, business, labor, and social services to define the work force skills needed for an advanced economy.

The Support Initiatives are meant to improve the economic climate in Oregon in order to better promote business growth. They differ from Key Initiatives primarily in that they are the responsibility of the state government, and implementation depends on active, responsible management from the public sector. The Support Initiative are:

- Form institutional partnerships, including business, government, labor, education, and individuals to build competitive advantage. The government views itself as the facilitator of this cooperative effort.

- Invest in public facilities and basic services. Oregon fell behind in the provision infrastructure over the past decade and recognizes the need to improve maintenance and plan for future growth.

- Contain the cost of business. The regulatory and tax structure must be evaluated in terms of how it affects all businesses in the state, rather than structuring policies that benefit certain types of businesses.
To guarantee the implementation of all of these initiatives, and to oversee the evolution of the strategic plan, "Oregon Shines" also calls for the creation of the Oregon Progress Board, appointed and chaired by the Governor. This Board guides the strategies developed over the long term, and is responsible for measuring the degree to which recommended initiatives are achieved by the relevant entities. The Progress Board benefits from the ability to cut across institutional barriers, thus creating a cooperative environment. The Board is required to report on the progress of "Oregon Shines" to the state legislature and the public every two years.

In 1990, the Oregon Progress Board formed six steering committees to develop a method of measuring the state’s achievement of the ambitious goals set forth in "Oregon Shines." With input solicited from organizations and individuals across the state, the result is Oregon Benchmarks, a set of 160 tangible measures of progress towards the strategic initiatives. Divided among benchmarks for People, Quality of Life, and the Economy, each benchmark is measured for six time intervals: data for 1979 and 1980 are presented as background when possible, 1990 represents the current status and baseline, while 1995, 2000, and 2010 are given as the future goals. In addition, the Progress Board identified a short list of priorities for the next five years which represent urgent problems in the state which must be significantly improved over the next five years. Examples from this list of urgent benchmarks are:

- Reducing teen pregnancy rates by two-thirds by 2000. (Benchmarks for People)
• Increasing the percentage of residents living in areas meeting federal air quality standards. (Benchmarks for Quality of Life)

• Improving Oregon's national ranking in worker's compensation costs. (Benchmarks for the Economy)

Similarly, a list of core benchmarks was created as "fundamental, enduring measures of Oregon's well being." Progress towards these long term benchmarks insures that the state remains a vital, attractive place to live and work. Examples include increased adult literacy, reduced crime rates, and increased personal income measured as a percentage of the U.S. average.

The emphasis of benchmarking is on measuring outcomes rather than inputs; thus, the amount of money spent on various education programs is not considered a valuable indicator, while the actual literary rate is. The benchmark data has been collected from existing sources when possible, and created by the Progress Board when necessary. For example, data regarding the air quality is available in a useful form from the Environmental Protection Agency, while the adult literacy information was gathered from a statewide test created expressly for Oregon Benchmarks.

These benchmarks are being adopted and pursued by a wide range of coalitions. One example is the Oregon Workforce Quality Council (WQC), created by the legislature in 1991 as a result of "Oregon Shines" and representing the confluence of several previous initiatives and activities. A major tenant of WQC is to bring business, government, and labor leaders together in order to improve the state of Oregon's schools and the provision of professional and technical training.
The Council is actively pursuing progress on a number of "Oregon Shines" initiatives and related benchmarks—progress reports and workplans are published frequently to keep other organizations and the public aware of changes and focused on the common vision of Oregon's workforce as the best in the world by 2010.

Oregon Benchmarks is now becoming a valuable reference point for institutional goal setting both within and beyond state government. City and county governments across the state have adopted the benchmarks for use in planning and budgeting, and in some cases, creating regional organizations focused on attaining benchmark goals. In addition, the creation and maintenance of "Oregon Shines" and Oregon Benchmarks has in turn created a favorable image for the state of Oregon and the city of Portland. The idea of a proactive, accountable, collaborative government makes this an attractive location for business; Portland in particular has significantly benefitted from this image.

CLEVELAND: MANUFACTURING AS A LEVER OF REVITALIZATION

Cleveland is a classic midwestern, heavy industrial city. And, like other industrial cities, Cleveland experienced severe economic dislocation associated with the competitiveness crisis in the 1970's and early 1980's. In Cleveland, this was combined with a fiscal crisis and attendant political chaos that left the city and surrounding virtually paralyzed. Yet, in the past decade or so, Cleveland has set in motion a striking process of restructuring, transformation, and revitalization.
Unlike other cities and regions which have sought to emulate the high-technology post-industrial model associated with Silicon Valley or the Boston area, Cleveland has pioneered a regional strategy organized around manufacturing as the cornerstone of the region’s economy. Indeed, the Cleveland region has managed to retain or rebuild a significant share of its manufacturing base, which continues to account for roughly 21 percent of regional employment. Compare this to Pittsburgh where the comparable figure is just 12 percent. Today, in addition to growth in high technology business and a rebuild of basic industrial capacity, Cleveland is also experiencing tremendous growth in the medical research, service and equipment industries.

One organization, more than any other, is associated with Cleveland’s strategy for economic transformation. Cleveland Tomorrow has played a key role in orchestrating a revitalization strategy for Cleveland. Cleveland Tomorrow is a board of 50 chief executive officers form the largest companies in the region, formed to "provide a unified voice...and to help coordinate the private sector’s response to the structural economic transformation of the region..." Cleveland benefits from having a large number of large firms headquartered in the region, unlike other midwestern cities has retained nearly all of these headquarters. In the past 10 years, Cleveland Tomorrow has been integral in leveraging more than $750 million from both the public and private sectors in the Cleveland area.

Cleveland Tomorrow was formed in 1982 in response to the decline of manufacturing in the region of the related loss of employment. Their original focus
was on re-establishing regional competitiveness. This evolved into a growing commitment to science and technology, and the need for the city of Cleveland to position itself to manage and benefit from the growth in these sectors. Their most recent strategic planning efforts are aimed capitalizing on the growing high tech manufacturing and international trade opportunities open to the Cleveland region. Throughout the planning process, the focus remains on the health of a balanced, regional economy across all sectors. Foundation support from both the Gund Foundation and the Cleveland Foundation have been critical to Cleveland Tomorrow’s process. In addition to financial support or two studies, one by the RAND corporation and one by McKinsey and Associates to evaluate the region’s economy and the opportunities and challenges facing the region, the foundations have helped to catalyze the cross-organization collaboration that is a hallmark of the Cleveland process.

Cleveland Tomorrow has played the central role in the development of a coherent regional vision and strategy. In doing so, Cleveland Tomorrow has forged a network of alliance, linkages and partnerships with other economic development organizations, such as the Cleveland Growth Association (GCGA), essentially Cleveland’s Chamber of Commerce, which produces a wide variety of informational reports to service Cleveland’s business community and is an effective marketer of the region to firms considering investment locales.

Cleveland Tomorrow also played the key role in the formation of the Regional Economic Institute at Case Western University. REI provides analytical
support for planning as well as background for state and federal grant applications. REI has provided a great deal of data support for the current planning process, and has been instrumental in the region getting additional state and federal support through thorough documenting of current economic conditions.

Another important piece of the overall Cleveland strategy is CAMP -- an initiative undertaken to help Cleveland manufacturers become more competitive. It also demonstrates the close attention and commitment to manufacturing on the party of civic leaders. It also signals what Cleveland’s leaders see as the key to manufacturing competitiveness, namely the introduction of high technology machinery, equipment and processes into the factory to reduce cost, improve quality and enhance productivity. In addition, they are vigorously pursuing international markets for Cleveland made products, recognizing that exporting is a key component of wealth generation.

COSE, the Council of Smaller Enterprises is another successful initiative, one that was formed to serve the needs of small business in the region. Some 97 percent of Cleveland region businesses are classified as small business by the Growth Association, and thus these businesses represent a important segment of the region’s economy.

Cleveland has recently attracted a number of major new capital investments in new productive capacity. LTV Corporation is replacing its existing ingot line with a second continuous caster at their facility in the city, and the Ford-Nissan joint venture to produce mini-vans is located just outside the city in Avon Lakes.
Together these represent almost $4 billion in new investment. Notable is the fact that all of the major new investments have been by domestic rather than foreign firms. Foreign direct investment seems to be an untapped resource for the region.

Cleveland has managed to avoid the loss of headquarters that Southwestern Pennsylvania has recently experienced. A major factor in this has been the retention and modernization of the Cleveland area’s manufacturing base, which provides a source of wealth and value creation that bolsters the local economy and provides important markets for administrative functions. A second important factor that was mentioned in our benchmarking visit is the development of an "early warning system" administered by the Greater Cleveland Growth Association, which provides information of four categories of companies, running from those with extremely close ties to the local economy and thus unlikely to relocate to those which are deemed to be in great risk of relocation. This allows policy makers to address the needs of high risk manufacturers proactively rather than in a reactive manner.

In addition to attracting major new private investment, Cleveland is also pursuing new public investment. Much of this is in the form of housing rehabilitation, land acquisition and banking, and industrial property development. One major new investment is the Gateway Complex, which will contain both the new baseball-only stadium for the Indians and the new arena to house the Cavaliers basketball team. These investments are expected to bring more people (both residents and tourists) into the downtown area, and to generate additional
activity in and near the central business district.

While Cleveland has achieved a good deal of success through the Cleveland Tomorrow process, there are still numerous problems facing the city. There is very little wealth left residing in the city--no middle or upper class neighborhoods. Hence, the city itself is suffering from a declining tax base and large scale property abandonment. In addition, social service delivery systems are heavily taxed by a large impoverished population. These social services are in the process of being consolidated to improve efficiency.

The city is now pursuing what is best characterized as a "barbell" development strategy, attempting to redevelop the corridor that connects the two prosperous "ends of the barbell"--the central business district and the medical/technology complex at the city's eastern border. The central business district has already seen a great deal of new commercial and real estate development, and the eastern neighborhoods of the city are home to a large and growing medical complex as well as the technology complex growing up adjacent to Case Western.

In short, three factors underpin Cleveland's economic transformation. First, Cleveland, in contrast to many other older manufacturing cities, has not sought to abandon its past in a quest for some high-technology, post-industrial future, but rather to actively engage in the process of creative destruction of its manufacturing sector. It has maintained a firm commitment to advanced, high-performance manufacturing as the cornerstone of its regional strategy. Second, its strategy of
downtown revitalization is related to its broader strategy for industrial modernization -- in contrast to other cities where downtown renewal has meant getting rid of manufacturing plants and older industrial complexes. Cleveland has leveraged the transformation of its manufacturing base into both the retention and attraction of corporate headquarters and corporate complex functions of major manufacturing firms in the region, adding stability to the economy and provides for greater local influence. Third, Cleveland has organized a coherent network structure among its major economic development and community development organizations which are staffed by high quality professional staffs, has backed this with firm commitments and "buy-in" by major foundations and corporations, and has made investments in high quality, timely data and information as a key element of effective strategic planning.
CONCLUSIONS AND IMPLICATIONS

Economic development varies widely across regions. Yet, the cutting-edge economic development strategies examined here share a common theme. All of them seek to create a broad regional foundation which is attractive to cutting edge high-performance economic organizations. The benchmarking analysis revealed a series of key themes which underpin successful regional economic development efforts:

- Vision is central to success for economic development.
- Private investment drives effective development, not government support.
- Reorganizing the civic structure, alone, will not stimulate development.
- Developing a shared consensus is imperative.
- Growth coalitions must be comprised of all relevant stakeholders.
- Coordination among multiple layers of government is important.
- High quality professional staff is essential, but boards must lead.

While there were numerous differences among each of the benchmarking sites, and each utilized differing approaches to the process of economic revitalization, there are a number of underlying lessons which can help inform the process of achieving successful economic development in the our region.

Economic development, both in theory and practice, has undergone a
revolution in recent years. Traditional economic development emphasized attracting companies by underwriting the costs of doing business, and aggressively marketing regional assets. It is increasingly recognized that successful economic development stems from creating a climate and underlying set of institutions that are conducive to both new private investment and the restructuring of existing manufacturing enterprises. This new approach to economic development combines existing programs, institutions and resources, with a new focus on quality management, continuous improvement, technological excellence, and a global trading orientation.

Regions, themselves, are increasingly important in this new era of economic development. For the past two decades, many firms have pursued global production and distribution strategies which may have led them to overlook regions. However, economic success increasingly requires the cultivation and development of regional locations which can provide key specialized inputs to business success, such as high quality, educated workforce, a stable labor climate, good infrastructure, a base of high quality suppliers, a clean environment, and a high quality of life. Early location theory conceptualized regions as affecting businesses in just two ways -- location relative to market and the cost of inputs, which were assumed to be uniform across regions. There is an emerging realization that the quality as well as cost of inputs varies widely across regions, and that institutional structures contribute to (or impede) a firm’s ability to make
the transition to globally competitive, high performance manufacturing.

The economic fates of regions and firms are mutually interdependent to a greater extent than ever before. As firms, particularly technologically-intensive firms, begin to collaborate with each other to develop new technologies and to cooperatively shape their environment, they realize the advantages of building cooperative relationships with regional governments.

A successful economic development strategy must create a shared vision of how this region can succeed in an increasingly competitive global economy. In each region, the approach to revitalization is keyed to a common understanding of the competitive advantages of that region. Silicon Valley builds on its technological strength in integrated circuits and the information processing industries; Oregon capitalizes on its relative proximity to the Pacific Rim to enhance exports to Asia; Cleveland leverages its heavy manufacturing legacy with new investment in technology to stimulate re-industrialization. The important point is that one approach does not fit all regions -- rather, common principles applied to regional assets yield individually-tailored strategies.

The public sector, while an important partner to private firms, cannot alone revitalize a regional economy. A healthy business community is needed to produce new jobs, create new products, generate wealth through the export of manufactured goods. In Silicon Valley, the private sector has taken the lead in developing the growth coalition, while in Oregon, the public sector has taken on a catalytic role in helping the business community to reform itself. The public and
private sectors in each of the areas outlined above have begun to develop collaborative relationships that allow both region and firm to be more competitive. The necessity of developing a unified growth coalition involving both sectors (such as Joint Venture Silicon Valley, Oregon Shines, ClevelandTomorrow) is a key finding of the case studies. In short, private sector firms must take the lead in revitalizing regional economies. Environmental and infrastructural changes can aid in this transition, but, fundamentally, firms must transform their internal production processes and their external relationships, and in so doing transform the environment in which they operate. It is important to note that regional strategy is not generic: While there is much to learn from the experiences of best-practice regional efforts, localities and regions need to develop their own "regional strategy" -- one that is tailored to their existing strengths and weaknesses, and that addresses a shared vision of where they can and should be headed.

At a broader level, the shift to a high-performance economy demands a wholesale redefinition of government's role in regional development and the process of economic transformation. In the past, all companies expected from government were decent roads, a work force with basic skills, and some financial assistance. This will no longer do. Everything from credit requirements and inflexible environmental permits, to the way teachers receive their credentials must be transformed to meet the demands of high-performance production. In essence, public policies must be as different from the past as Honda is from General Motors. Simply put, the move to high-performance creates unprecedented opportunities to