Economic development in Maine: Strategies and opportunities

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Changes in the national and international economies have forced Maine and other states to reexamine their approaches to economic development. No longer are the traditional approaches useful in the context of a global economy. Maine's present and future economic growth requires that the state respond to the realities of this new economic landscape. In this article, Steven Bollard and Stephanie Seguino from the University of Maine and Charles Colgan from the University of Southern Maine put forth their thoughts and conclusions on the strategies and opportunities upon which Maine's economic development efforts should focus.

Introduction

The State of Maine continues to face difficult economic times as it respond to the challenges of the global economy, defense conversion, loss of jobs in many of our natural resource-based sectors, and declining jobs in manufacturing. Pressures have increased for state government to take immediate action to improve economic performance in the short term. Understandably, job creation and short-term economic performance have received significant attention of late. Yet, the empirical evidence over the past 30 years shows convincingly that states can best improve their economies by building long-term "development capacity" (Fosler, 1992; CFED 1993; Ballard, et. al., 1993). Of the 20 states that have shown the most dramatic improvement in economic performance, 16 have clear records of investing in long- term capacity (CFED 1993).

This article addresses what Maine can do to enhance development capacity and stimulate economic activity. By making the right investments and by building partnerships among the public sector, the private sector and the research community, Maine can become an entrepreneurial state. Entrepreneurial states understand that most jobs are created by small businesses. They build on the strengths, assets and values inherent in the state. They understand their key vulnerabilities and take steps to reduce their significance. While they appreciate the values of large employment gains from single employers, they also understand that the most successful strategies build capacity one painful step at a time. Entrepreneurial states understand that creating, or even reinventing, government structures and effective public sector performance are essential to long-term capacity.

Three specific questions are addressed here: What are the characteristics of the new economy and how do they affect Maine? What are Maine's primary advantages and disadvantages? What specific things can the state do to create an entrepreneurial state? Answers to these questions come primarily from our comparative assessment of the strategies used in other states, our knowledge of best practices that are emerging in communities and states across the nation, and a range of data sources on economic development in Maine.

The new economy

Characteristics of the new economy

The character of the U.S. economy has undergone fundamental change over the last 25 years. Among the many factors that have influenced the shape of the economy, three stand out as fundamental: 1) The gradual reduction of tariff and other barriers to international trade, 2) technological advances in transportation and communications, and 3) the elimination of policies that hampered capital mobility, such as currency exchange and profit repatriation restrictions. Together, these changes have driven the globalization of production and exchange. The U.S. economy is now more integrated with the economies of other countries, industrialized as well as lesser developed.

Over the last quarter century, the share of U.S. consumption comprised of imports has grown while exports as a share of gross domestic product (GDP) have more than doubled from 4.5 percent in 1960 to 11.5 percent in 1992. Economic openness makes U.S. economic performance (including wage and job growth) more sensitive to economic conditions prevailing in other countries. Wage rates, labor laws, economic and environmental regulations, and the level of research and development investment in other countries can all have profound impacts on the U.S. trade balance, and GDP and wage growth. These changes create opportunities for Maine's goods and services abroad but also increase competition at home from goods and services produced abroad. As a result, the way we produce goods is affected, requiring new strategies to promote growth and development.

Changes in production patterns

In the recent past, mass production techniques were the norm and provided a set of homogeneous goods to the consumer market. Worker skills were generally acquired on the job and were fairly static over time. But in the current environment, firms producing this category of goods tend to be located in lower wage countries where productivity is relatively high. It is difficult for the U.S. to compete with these producers without significantly lowering wages, labor standards, or economic and environmental regulations.

A shift in the location of standardized goods production is only part of the story. Consumer markets reflect an increase in demand for a diverse array of specialty and high-tech goods. In this environment, flexibility, knowledge, innovation, and speed are important criteria for success. This type of production generally requires short production runs and frequent product changes, implying a greater reliance on a skilled (and better paid) labor force to adapt to changes in the production process and produce quality goods. There is little disagreement that the U.S. and individuals states would be better off to follow the high-wage path to growth made possible by specialization in high-tech flexible production.

Strategies for development in the new economy

The new economy differs from the old economy in a variety of ways. Firm location is no longer driven by the need to be near markets or natural resources. Instead, locational criteria increasingly depend on the availability of an adequate physical and human infra- structure, including a trained workforce, goods schools, and a clean and safe environment. The requirement of a skilled work force stems from the fact organizations must now engage in a constant process of innovation in order to stay competitive.

These changes have implications for development strategies. There is little evidence that "plant-chasing" or similar supply-side strategies are cost-effective in the longer term. The ease with which firms can transfer production implies that tax incentives are likely to be successful only as long as they last. Moreover, tax abatements impose huge costs on communities which must carry a larger tax burden in order to cover the cost of education and infrastructure maintenance.

Among key ingredients to success are the maintenance of a high level of social and physical infrastructure. Given rapid technological change, people must have the resources to retool and upgrade their skills over their entire lifetime. One step that may be taken to facilitate these goals is to provide tax incentives to firms that train and retrain workers, especially those who are unlikely to receive training such as women, people of color, and front-line workers. Investment in physical infrastructure, including roads, bridges, ports, and telecommunications networks, and the environment will also promote economic activity and will help to retain existing businesses.

Finally, but certainly not of lesser importance, states must address the problems of regional economic disparity, poverty, and discrimination so that all citizens participate in economic prosperity. This goal should be pursued not only to promote social cohesion but also because, by expanding economic opportunities, states reduce the drain on social budgets allocated to welfare, prisons, and substance abuse rehabilitation. By using preventative measures, states can free up tax dollars to spend on positive forms of investment in people and the physical infrastructure.

The Maine economy today

For much of the 1980s, economic development looked easy. The Maine economy expanded at rates not seen since World War II and not seen at all this century in peacetime. From the depths of the 1982 recession to the peak of the expansion in 1989, over 153,000 jobs were created in Maine (a 28 percent increase), compared with a population increase of only 94,500 (8 percent). Total output of goods and services in Maine grew by more than $9.2 billion in real terms, an increase of more than 56 percent.

While apparently successful in aggregate growth terms, the 1980s expansion was less notable for resolving underlying regional economic inequalities. In fact, that period might be more aptly characterized as a period of rapid growth for southern Maine, while major parts of the northern and eastern Maine continued to face high unemployment and poverty rates. Income inequality between the regions widened, with average northern and eastern per capita incomes falling further behind those in southern Maine (U.S. Department of Commerce, 1993).

The 1990s are unlikely to see a repeat of the 1980s experience. The economy is just emerging from a recession that was as painful as the 1980s were pleasant. From the peak of expansion in the first quarter of 1989, Maine lost 36,000 wage and salary jobs over the next three years. Major motive forces of the 1980s, including the construction and defense booms are gone. Loring Air Force Base is closing (to be partly offset by the new Defense Department Finance Center), Bath Iron Works has cut its labor force by a third and the Kittery- Portsmouth Naval Shipyard by half. The fishing industry faces drastic reductions in the wake of federal conservation regulations. The downsizing of large corporations that is sweeping industry nationally has hit Maine in the paper industry, in banking, and even in such traditional islands of employment stability as the electric and telephone companies.

The Maine economy has not, however, halted in its tracks. U.S. economic growth has resumed and this is pulling Maine economic growth along with it. Maine should recover the 1989 levels of employment over the next two years, and will continue to add jobs at a slow but steady pace through the rest of the decade barring any major changes at the national level or the complete collapse of defense-related economic activity (e.g., the closure of the Brunswick Naval Air Station and/or Kittery-Portsmouth Naval Shipyard).

The ability of the Maine economy to add new jobs may be circumscribed, however, by a labor force that is inadequately prepared. Over 20 percent of the Maine population is illiterate, and one fifth of students drop out before finishing high school. Yet 75 percent of the jobs require education and training beyond high school, and by the year 2000, that figure will jump to 85 percent (Fitzsimmons, 1993). Even those who receive adequate formal education have little opportunity to obtain skills upgrading over their working lives. Thus, one of Maine's primary competitive disadvantages in the near future will be the insufficient investment in human capital, and the absence of programs designed to sustain lifetime learning.

Long-term forecasts for employment growth out to 2005 range from an increase of 12 percent (State Planning Office) to 15 percent (USM Center for Business and Economic Research). To the extent that the skills mismatch between labor supply and demand widens, these employment growth forecasts may be optimistic. In any case, all of the job growth in these forecasts will come in the non-manufacturing industries, primarily in services. Notably absent from the forecasts are any industries that could play the kind of driving role in economic growth that the defense and construction industries did in the 1980s. Maine is thus confronted with a choice about its economic future. The economy can be left to grow along with national trends, as the forecasts suggest it will. Or the state can attempt to encourage specific industries that a recognized potential to accelerate economic growth beyond what the existing trends will provide.

Building economic development capacity in Maine

What can Maine do to positively affect its economy? The central point of the new economy is that Maine must take a proactive approach to economic development; Maine should not be content to hope that regional or national trends will carry it along.

Thus, the key question becomes how to positively affect economic development. Characteristics of the entrepreneurial state suggest three broad approaches. First, as suggested above, Maine can learn from the experience of other states and not repeat their failures or pursue strategies which are highly unlikely to succeed. Second, Maine can give serious thought, and possibly action, to "hitting the home run" - i.e., trying to develop an economic cluster or significantly expand an existing capacity. Third, and most importantly, we can build, expand, and nurture our existing businesses and targeted economic activities. Each of these is characterized below.

Learning from other states

Learning from other states means understanding their failures as well as building on successful strategies. Among the biggest failures in state economic development strategies are such traditional approaches as:

• Smokestack chasing;

• Hoping to receive a residual benefit from a strong regional economy; and

• Trying to overcome the next biggest barrier to a vital economy (e.g., believing that workers compensation reform is the same thing as building long-term economic growth.)

The problem with smokestack chasing is that this strategy is very expensive, typically accounts for very few permanent jobs, and usually creates substantial resentment from existing businesses. Even if it did not do these things, it is hard to imagine this kind of economy flourishing in Maine; it just is not consistent with the state's heritage, values or culture. One drawback to the other two approaches is that neither is very positive or proactive. While Maine should identify and try to correct its largest vulnerabilities, it is a mistake to believe that improvement in any one variable will have a significant impact on economic development.

Building on the successful experiences of other states has been addressed in section two above. However, it is useful to emphasize that Maine has much to gain by understanding and taking advantage of its strengths and linking these strengths to the emerging opportunities and trends which are beginning to shape our nation's economy. While Maine has many strengths, the following are among those which offer the greatest economic advantages:

• A high quality environment, which is a significant advantage in dealing with the next generation of environmental regulations and it makes Maine attractive to a variety of emerging new industries;

• A high quality of life, ranging from the living conditions in small towns to the physical environment;

• Cultural attractiveness, a significant and growing comparative advantage in the economic development game;

• The foundations for an excellent educational system, including public schools, technical colleges and higher education;

• Telecommunications infrastructure, already consisting of over 50,000 miles of fiber optic networks; and

• A very low crime rate, ranking 8th among states in this vital quality of life indicator.

These strengths can be marketed aggressively to help Maine grow as well as to attract the kind of businesses that are consistent with the values of its citizens. Maine can take a lesson from Boise, Idaho, which has successfully sold itself as a viable alternative to the high-cost, high-crime, low-quality of life style of California. As a result, Boise has experienced a 60 percent increase in job growth in the last five years. More importantly, the city has attracted businesses that are consistent with its values and its vision for the future.

In addition, Maine can grow its own new economy by promoting community-based small businesses. This is a proven strategy in Maine and in other small, rural states (Popovich, 1993). For example, witness the success of such diverse sets of activities as cranberry production in Washington County, Creative Imaging in Camden, and IDEXX in Portland. All have something in common: They are small businesses, compatible with Maine values and capable of growth.

Marine science, technology and industry

It is high-risk and potentially high-cost to strategize about economic development at a grand scale; i.e., t o create a large set of integrated economic activities that can serve as the foundation for economic growth over several decades. Yet, well-known successes exist. In North Carolina, long-term strategists used a high quality of life and a world-class research infrastructure to build Research Triangle Park into a virtually permanent economic foundation for the state. Of course, the state was helped by billions of dollars of federal Research & Development (R&D) - something that Maine has not benefited from. In Salt Lake City, James Fletcher built a successful partnership between the research and medical communities into a global center for the manufacture and application of prosthetics.

Hitting the home run should not be the basis for long-term economic development in relatively poor states. Yet, several characteristics exist in Maine to give serious consideration to building its scientific, technological, and industrial capacity related to its marine resources. This approach would be consistent with the revolution occurring, on a global basis, in ocean science and technology and, likewise with significant increases in R&D expenditures in these area.

Maine has an established research capacity in the fields of marine geology, biology, and oceanography. The state has a history of cooperation among marine research organizations and marine industry throughout the New England region. Maine's location on the North Atlantic coastline and the Gulf of Maine is important as is the fact that it is one of two "cold water aquaculture" states in the nation. Building this cluster could have wide range of benefits and could create many opportunities. It could significantly aid our aquaculture businesses, lead to the production of many advanced products such as drugs and medical treatments, and help to create a world class R&D infrastructure in marine science and technology in northern New England.

To seriously pursue this option, Maine will need help. Maine's Congressional delegation will have to work vigorously to bring federal R&D dollars to the state, comparable to the successes which other rural states (North Carolina, West Virginia) have had in this area. Secondly, the research community will have to build partnerships among themselves and, most importantly, with the industrial and business community to take advantage of the opportunity.

Targeting business activities

There are a number of established industries that have the potential to either stabilize declining sectors or to grow rapidly enough to push Maine's growth rates above the rather meager levels currently foreseen. They also meet the important criterion of being "clean" industries. These are discussed below.

A. Environmental products

Environmental products can be broken down into two groups - intermediate environmental goods and services and consumer goods. Examples of the former include pollution control equipment, recycling, engineering services, and laboratory testing. Among environmental consumer goods are processed organic food, natural clothing, biodegradable plastics, and recyclable parts.

Worldwide, the sales of intermediate environmental goods and services are estimated to have been about $270 billion in 1991, included $120 billion in the U.S. (Environmental Business Journal). Growth of this industry globally is expected to reach $408 billion within five years, and $164 billion in the U.S. Data on consumer goods sales are more difficult to amass in large part due to classifications problems. Numerous reports indicate a growing demand for goods in this category as well as a rapid growth in new consumer products. Large retail stores such as WalMart and K-Mart, for example, have adopted environmental marketing policies, targeting environmentally safe products for purchase (Halverson, 1991).

Maine has already established productive capacity in this area, with over 4800 jobs associated with the environmental intermediates goods and services sector alone. Small business growth has been spurred by the demand for consumer goods, with such products as cloth shopping bags, natural yarn, and processed organic food finding a ready market. Further development of this sector will require investment in research and technology dissemination. The sector will require targeted financial capital since, in some cases, new ventures are perceived by banks to be too risky.

B. Agriculture

Agriculture continues to be an important economic activity in northern and eastern parts of Maine. From a development perspective, strategies to raise agricultural incomes are key to improving standards of living in those regions, which have been the most economically depressed and have the highest unemployment rates in the state.

There are some key trends in the national economy and in Maine that heavily influence the agricultural sector. First, an increasing interest in health and nutrition has contributed to concern over the heavy reliance on chemicals in agricultural production. Consumers have responded to these concerns by increasing their demand for organically produced goods. Second, there is a growing awareness of the potential negative off-farm impacts of agricultural methods. At the federal level, funding has been increased for programs that support the adoption of non-chemical farming methods, including sustainable agriculture practices.

Given current trends, three strategies can serve to promote the development of the agricultural sector: 1) promotion of sustainable agriculture strategies, 2) assistance to farmers to develop marketing networks (e.g., distribution cooperatives), and 3) support for organic farming.

Sustainable agriculture implies a decreased dependence on chemical inputs. The economic impact of this approach may be significant since it tends to reduce leakages out of the region (for spending on imported inputs), potentially increasing domestic demand (i.e., demand for goods produced within the state), and thereby stimulating economic activity, employment, and incomes. Support for programs that assist farmers to the break into the marketing chain may also

stimulate agricultural activity. Retail food chains have typically been reluctant to buy commodities from Maine farmers, often because they have strong ties to national distributors. Also, transactions costs incurred by the retailers when buying from individual farmers tend to be higher than when buying wholesale. Development of marketing chains such as marking cooperatives can promote bulk sales, thereby reducing transactions costs for both retail stores and farmers, making Maine-produced goods more price competitive.

Finally, support for organic farming in Maine can serve the dual purpose of promoting environmentally- sustainable economic activity and raising farm incomes. Increased consumer interest in organic food has resulted in rising demand in spite of the fact that prices of organic product tend to be higher than those of chemically- produced food. Support for organic production through support for research and extension, as well as targeted credit for organic farmers, can raise production levels and may result in falling prices due to economies of scale.

C. Export Services

Traditional views of economic development have not considered the service industries as deserving much attention. With the exception of tourism, service industries have usually been seen as part of the "local" economy whose prosperity depended on the success of the exports from the regional economy of the products of the primary (agriculture, forestry, fishing, and mining) and secondary (manufacturing) industries. At the same time, the service industries have come to be seen as the center of low-paying, part-time work.

But the service industries should be seen as playing a much more important role in Maine's economic development. The opportunities for the service industries to serve as an important part of economic development arise primarily because of the increasing role of service industries as export industries. By "export" we mean the ability of an industry to sell to those from outside the region. Tourism is an export service, one where the service (hotels, skiing, sightseeing, etc.) is performed in Maine but the sale is often to someone from out-of-state. The ability of service industries to sell outside a region was once limited, but this is no longer the case. Modern communications, including air transport and telecommunications, has made it possible to greatly expand the territory that can be covered by service companies.

Maine is already the home of a number of service industries involved in exporting, the most significant of which is certainly UNUM. UNUM has transformed itself from a relatively small insurance company in to a major diversified financial services company with subsidiaries in Europe and Asia and with plans to further expand worldwide. UNUM's international success illustrates the opportunities that exist in the international market for service industries.

International trade in services has been the fastest growing segment of world trade over the past ten years, a major reason why establishing ground rules for trade in services was a key part of recent international trade agreements, including the North American Free Trade Agreement (NAFTA) and the new General Agreement on Trade in Services (GATS) completed as part of the Uruguay Round in 1994. These agreements, along with the U.S.-Canada Free Trade Agreement, greatly expand the opportunities for Maine firms both nearby and around the world. Law firms in Maine have already taken advantage of the U.S.-Canada agreement to establish relationships with firms in Canada to assist companies doing business on both sides of the

border. Growth in engineering, business management consulting, architectural service's, accounting, and advertising are expected to be a major part of the benefits to the United States from these trade agreements. Another example of a key service industry, and already one of the fastest growing industries in Maine and elsewhere has been health services which counters both of the stereotypes of the service industries. The growth in health services has been fueled in large part by the growth of the Medicaid and Medicare programs, which have brought substantial new resources into Maine to pay for health services making this effectively an export services industry. The health services industry is also one characterized by a preponderance of well-paying jobs. Health care reform may slow the rate of growth in employment in this sector, but the extension of health care to currently underserved populations, particularly in rural areas, will continue to provide additional growth opportunities in this area.

Maine's ability to compete in the emerging world- wide markets for services can be assisted in several important ways. The first and most important is in the area of communications. This obviously includes telecommunications because of the increasing importance of high speed computer-to-computer and fax communications However, transportation links are also critical, especially air transportation. Providing services can increasingly be done over telecommunications links but the ability to travel remains an essential element The other area where assistance can be provided is in supporting smaller businesses to take advantage of the emerging opportunities in international trade. This includes identifying emerging markets for Maine services, such as in Latin America, and assisting companies understand the emerging international rules on trade in services.

D. Biotechnology

In the 1970s and 1980s, Maine began to benefit from the electronics revolution that had been born and grown to adolescence in eastern Massachusetts. Firms such as Digital and National Semiconductor boated manufacturing plants in Maine to take advantage of the availability of land and labor. As the electronics industries matured in the 1980s, the growth provided by these industries dwindled to a trickle and then went into reverse during the recession.

While the electronics industry will remain an important part of the New England and Maine economies, the question is whether a new industry can be established n the region which will have the same growth potential. If there is, it is likely to be in the area of biotechnology. Biotechnology is widely considered to have the same growth potential for the next twenty years that electronics had for the past twenty years, and Maine is well positioned to take advantage of the potential. New England has substantial potential to be a major “cluster” for the biotechnology industry, meaning that firms involved in research business services, transportation and distribution. This is exactly the phenomenon that has created the Silicon Valley region in northern California and the "Route 128" economy around Boston, of which cluster the electronics firms in Maine have been part.

Maine already has a nucleus of biotechnology- related firms, including IDEXX, one of the largest developers and manufacturers of laboratory equipment for veterinary medicine. Maine is also the home of biotechnology research institutions, including the Foundation for Blood Research in Scarborough and the world- famous Jackson Laboratory in Bar Harbor. The presence of well-established biotechnology research organizations in Maine means that Maine

has the potential to be both a center of innovation and a center of production to a much greater degree than has been the case with electronics.

The extent to which biotechnology becomes an important industry in Maine will depend on two major factors- 1) investments in research and development and 2) connections to the emerging industry in New England and elsewhere. The electronics revolution can about when major federal investments in research and technology development at universities such as MIT were followed by the spin-off of technologies to commercial uses by those involved in the research, then proliferated as those companies created at the beginning of the technological revolution spun off more and more smaller companies to compete and to diversify product and services. The biotechnology revolution is still in relative youth and will still depend on a great deal of public and private research. Maine's ability to capture a share of these dollars and expand its research capacity beyond current levels is one critical factor.

Maine also needs to explore the possible applications of biotechnology to its traditional natural resource industries including forestry, fisheries (including aquaculture) and agriculture. The combination of biotechnology research and its possible uses in these industries could have doubly beneficial effects, furthering development of Maine's position in a biotechnology cluster, and helping maintain or expand Maine's traditional resource base.

Connections with eastern Massachusetts, which is likely to be the core of the regional biotech cluster just as it was of the regional electronics cluster, will also be important. The Census Bureau's reclassification of the southernmost-Maine towns as part of the Boston Metropolitan Statistical Area is a symbol of the growing integration between southern Maine and eastern Massachusetts. The possibility of rail connections, especially high speed rail connections, between Boston and Portland may create additional links that would reinforce the potential of Maine becoming a part of a New England biotech cluster.

E. Specialty Fabricated Products

The defense industry in Maine has been recognized primarily by such large firms as Bath Iron Works and Saco Defense. But Maine's defense industry has also included a wide array of smaller manufacturing firms, primarily in the fabricated metals industry. These firms have provided, and to a great extent still provide, a number of components of military hardware, including transmissions for tanks, insulating materials for rockets, and other complex machined parts. These smaller firms have been responsible for a good deal of what growth in manufacturing jobs there has been over the past decade.

The decline in defense purchasing presents as big a challenge to many of these companies as to the larger, better-known firms. Conversion from defense markets is critical for the Maine economy, since these firms produce among the highest-value products and require some of the most advanced skills in the Maine work force. The problem facing these firms is more complex, however, than simply finding new buyers to replace BIW or other prime contractors. Secondary contractors have grown used to meeting the very precise specifications of Defense Department purchasing. They have specialized in manufacturing for quality rather than quantity.

These firms emerge from an era of defense dependency to a market that is much more competitive on an international basis, with new demands for both quality and quantity of products and an emphasis on "just in time" delivery of parts to minimize inventory costs. Their competitive advantage will be their proven ability to deliver products of high quality to exacting specifications, but Maine firms may also suffer from competitive disadvantages, including a lack of experience surviving competitive markets and little knowledge of high-potential foreign markets being created by tariff reductions and other trade-barrier reductions around the world.

Assisting the firms that produce specialty fabricated products requires essentially the same elements discussed earlier under services. These firms need to find new markets at home and abroad and they need rapid, reliable transportation services to move their products to markets which are likely to be increasingly outside of Maine and outside the United States. Recent developments in the regional transportation network, including an intermodal facility at Auburn for truck- rail connections, the ability to ship containers directly from Portland, and the emergence of air freight handling at both Bangor and Portsmouth, NH with potential future expansion in Portland are likely to be key in permitting those companies that can find new markets to move their products.

Summary and Conclusions

Economic development is a long-term process. If the strategies adopted are successful, the result is improvement in the quality of life, only one component of which is an increase in per capita incomes. In addition, development policies must promote forms of economic activity that reduce unemployment, diminish regional economic disparity, limit adverse environmental impacts, and result in relative economic security and stability.

Efforts to achieve these goals must be guided, however, by an understanding of changes in the U.S. and global economy. We have noted here that changes in laws governing trade as well as technological advances are important factors shaping the contours of what policies will be most effective to achieve our development goals. The features of the new economy suggest that growth and development are best supported by long- term strategies that build development capacity. To promote a "virtuous cycle" of development where high skills beget high wages, investment in people is of primary importance. But it is not enough to educate and train an elite tier of the labor force. The thinking skills of all workers have to be honed in order for Maine to be a comfortable home to high-wage industries.

Economic diversification is also a necessity, in order to limit the negative effects on the Maine economy of vagaries in the international economy. The opportunities identified in this paper attempt to address that goal and are based on trends that are well established in the national economy and are already being seized by some Maine firms. At the same time, it should be recognized that Maine is not the only state in the United States, nor even the only region in the world, to identify these opportunities and to move to take aggressively advantage of them. Maine businesses and economic development efforts face formidable competitive challenges. These efforts will require attention to elements of both the new economy and its emphasis on innovation, new products, higher skills, and existing businesses, with elements of the "old" economy with its emphasis on the costs of land, labor, and capital and on highly competitive markets.

State economic development policy has oscillated between two poles: One of trying to keep business costs low in pursuit of the ideal "business climate" by minimizing taxes and the role of government, and the other of finding a more positive role for government through education, training, research and development, and financial assistance. The fact is that to some extent both of these approaches are necessary. The trick for Maine, as indeed for other states, is to carefully balance the need for investments in human and physical capitol required for economic development with the need to keep costs under control. There is no magic formula for finding this balance. In the best of all worlds, the formula will be one that is negotiated, however informally, by a groups that have a stake in the development process: Communities, businesses, workers, government, and environmental groups. Collaborative and inclusive negotiations can go a long way to limiting costly social conflict (e.g., in the workplace, in the law courts) that can raise costs and circumscribe economic activity.

The first step in this process is for the state government to re-envision itself as an important catalyst and arbiter in the process of economic development. In this role, the state must act as an advocate for economic development, focusing the public's attention on the long-term nature of the process and redirecting our attention from short-term gimmicks that do not work. Second, the state as an institution must develop a process that brings social coalitions to the table and a collaborative framework for developing economic policies that address the concerns of a wide range of groups.

References:

Ballard, Steven, James Faulkner, and Julia Talbot. 1993. "Economic Development and Economic Growth: Finding the Right Balance for Maine." Policy Paper 93-05 (November 1993). Orono, ME: Margaret Chase Smith Center for Public Policy.

Campbell, John. 1994. "The Ecology Alchemists." Regional Review. Winter 1994: 13-18.

Colgan, Charles S. Places Left Behind: Regional Development Policy in the United States and Canada. 1945-1990. Toronto University of Toronto Press, forthcoming 1994.

Corporation for Enterprise Development. The 1993 Development Report Card for the States. Washington, DC: CFED, 1993.

Fitzsimmons, John. 1993. "Comments." In Toward a Sustainable Maine, ed. Richard Barringer. Portland, ME: Edmund S. Muskie Institute of Public Policy.

Fosler, R. Scott. "State Economic Policy: The Emerging Paradigm," Economic Development Quarterly 6, 1 (February 1992):3-13.

Halverson, Richard. 1991. "Big Three Take High Road on Environmental Front." Discount Store News, Vol. 30, No. 6 (March 18); 72-75.U.S.Department of Agriculture. 1993.

New England Agricultural Statistics. Concord, NH: New England Agricultural Statistics Service.

Popovich, M. New Businesses. Entrepreneurship. and Rural Development: State Policies and Generating Rural Growth from Within. Washington, DC: Council of Governors Policy Advisors, 1993.

U.S. Department of Commerce. 1993. Bureau of Economic Analysis (data tapes). Washington, D.C.

Wallace, Henry. 1993. Alternative Agriculture Resources Report. 1993. "Organic Sales up 23 Percent." Vol. 7, No. 9 (September).

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