

Growing Vacationland by Retaining and Attracting Knowledge Workers

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This paper considers the benefit of retaining and attracting highly skilled workers as a means toward prompting job and income creation in the State of Maine, a rural region of the US with a small share of high-tech jobs. The region faces dual problems of the out-migration of young, educated workers and an inability to grow its labor force with the kind of knowledge workers that high-tech firms want. As a consequence, the State has limited success in attracting or growing high-tech companies.

Research findings from other regions demonstrate the crucial linkage between a region's quality of place and its ability to attract and retain knowledge workers. Can Maine follow a similar path? The paper proposes developing a system dynamics model based upon the knowledge of participants involved in a collaborative effort. The desirability of forging public-private alliances to stimulate investment in the cultural capital of the State is explored.

Key words: quality of place, economic development, knowledge workers, best practices, creative class, new economy

Growing Vacationland by Retaining and Attracting Knowledge Workers[∇]

Michael L. Montagna and John P. Davulis

Introduction

The license plate for automobiles in the State of Maine, which has approximately 1.3 million residents, has carried the slogan "Vacationland" for more than 65 years. The State's primary economic activity centers around tourism, natural resource based industries (paper, lumber, fishing, potatoes), aging industries (textiles, leather, ship building), support services (call centers, back offices) and a limited high-tech sector (semiconductors, biotech). Like many similar regions, Maine faces dual problems of emigration of young, educated workers and an inability to grow its labor force with the kind of knowledge workers that high-tech firms want. As a consequence, the State has limited success in attracting or growing high-tech companies.

Highly skilled workers are in the enviable position of choosing where they want to live and work. Can Maine attract knowledge workers who want to balance lifestyle and economic opportunity? Can Maine's young adults who leave the State to advance their education find satisfying jobs back in Maine after completing their studies elsewhere? Can it develop a quality of place that is attractive to such workers?

The paper explores the benefit of retaining and attracting younger and better-educated workers as a means toward prompting job and income creation in this rural region of the US. Research findings from other studies demonstrate the crucial linkage between a region's quality of place and its ability to attract and retain the knowledge-based workforce that can precipitate a wider variety of investments that further enhance the attractiveness of the region. The paper summarizes the development strategy proposed by Richard Florida and considers other examples from the Sierra Nevada region of California and the Catalonia region of Spain. In addition, the paper considers some interesting examples from the experience of American Indian nations.

Next the paper presents a plan for a collaborative research effort in which stakeholder working sessions will be held over a 6-12 month time frame. The project intends to utilize a professional system dynamics modeler to develop a prototype system dynamics model that incorporates the knowledge gained from the working sessions. The resulting model will be used to evaluate the feasibility of various economic development strategies, such as the desirability of forging public-private alliances to stimulate investment in the cultural capital of the State.

[∇] The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Maine State Planning Office, the State of Maine, or Central Maine Power Company.

The proposed plan for defining the system dynamics model in a group setting is commonly employed by system dynamics practitioners. Pretty much this is what Jay Forrester did when he developed his urban dynamics model in 1968. (Forrester, 1989). John Collins, former mayor of Boston, organized the working sessions and secured the participants. Professor Forrester followed the dialogue and built the system dynamics model. This general formula has been used successfully in many system dynamics modeling projects. One of the great benefits of such an approach is the creation of an understandable and believable computer model (and an accepted set of assumptions) that can be used to develop policy recommendations that reflect the combined knowledge of the participants.

Background on the State of Maine

The State of Maine is fortunate in having tremendous waterways, both inland and coastal. Its coastline is composed of a multitude of peninsulas and hundreds of islands, thirty of which are inhabited. The State's rugged coastline, together with its mountains, forests and rocky soil have shaped the character of its people as one interacting with, and often struggling to overcome, its physical environment.

Maine's cultural uniqueness is largely based on the prominence of three basic natural resource industries: forestry, farming and fishing. Not many regions within the world's developed economies have had such a widespread accentuation of all three industries in such close proximity to one another. Fewer still have maintained their rural characteristics into the twenty-first century.

Both natives and those "from away" continue to view Maine as a state that has "escaped the onslaught of twentieth-century urbanization." (Lewis). Much of Maine's identity comes from its heritage of the natural resource industries that first brought settlers to the region, coupled with the independent spirit and lifestyle those industries exemplify.

This cultural legacy has caused many persons from more urban and suburban backgrounds to romanticize Maine as a place where you can live close to the land and water. Others characterize the State's dependent on natural resources and tourism as akin to many third-world economies. In reality, Maine's young adults, particularly those with a college education, have found limited employment opportunities within its borders.

A dwindling manufacturing base, modest growth in the natural resource sector, and the low wage options offered by tourism have led large numbers of young workers to look elsewhere for employment. The decade of the 1990s saw a net exodus of more than 31,000 residents between the ages of 20 and 34. That represents a 20% reduction in Maine's population in the 20-34 age bracket.

However, the same rural characteristics, the proximity to nature, that have resulted in limited employment opportunities for Mainers can be turned into a strength. Rustic authenticity, clean air and recreational opportunities are now valued and demanded by the lifestyle choices of the creative class of workers now growing in numbers. In terms of its quality of place, Maine has dual advantages: an abundance of natural scenic beauty of its mountains, lakes, coastline and islands and an authentic rural heritage of small towns and communities. The question is whether Maine can take advantage of its good fortune in having both of these qualities. Can the State find innovative ways to use that combination of cultural resources to stem the loss of young adults now choosing to forge their careers and build their families elsewhere?

Development Strategies

In the following section we present a framework for economic development in terms of the quality of place and three development strategies that provide innovative ways that various regions of Europe and America are reshaping their internal decision making processes to encourage economic growth. The regional strategies recognize the importance of expanding the traditional development paradigm to include an appreciation of how cultural values and environmental amenities are directly tied to success in the new economy. Successful regions are not passive policy takers, subject to externally imposed or "cookie-cutter" models of development. Rather they are creative in devising their own strategies that integrate the social and cultural resources into their internal decision making processes.

The predominant focus of the cases presented here is on regions that have particular sensitivities for maintaining their unique physical characteristics and strong cultural legacies as a prerequisite to growth. Some of the cases present examples of natural amenity blessed regions that are shifting away from a dependence on resource extractive industries to one where growth is possible if the region can take advantage of the opportunities that knowledge workers offer in the new economy context. The cases present examples of sustainable growth policies that have been set into motion without compromising natural and cultural resources. Successful regions face-up to the challenge of creating self-directed initiatives to implement development strategies that protect or enhance environmental amenities and cultural uniqueness, which are deeply valued by residents and potential migrants alike. The authors suggest that understanding the combination of forces exerted by the new economy is an essential factor in developing a winning economic strategy that does not undermine the existing natural and cultural resources.

- **Quality of Place.** Richard Florida, who is the H. John Heinz III Professor of Regional Economic Development and co-director of the Software Industry Center at Carnegie Mellon University, has been described as a maverick urbanist. He is a prolific and sometimes controversial writer on topics related to the new economy, urban revitalization

and human capital. Florida argues that human capital or talent is the most important factor of production in high technology industries. Cities and regions that are successful in attracting and retaining knowledge workers will flourish economically and culturally.

That means we really need to think long and hard about what economic development strategy really is. We need to refocus our attention away from companies and toward people -- away from business attraction to talent attraction and quality of place. The key is that the wealth and prosperity and success of regions is shaped much more by the distribution of talent than the distribution of industries or firms. And what is the critical factor in the distribution of talent and where people want to live and work is quality of place. (Florida, August 2000, 1).

Figure 1 provides a visual schematic that summarizes Florida's perspective on economic development. In effect, we are dealing with a series of interconnected, positive feedback loops. The process of growing one's economy is dependent upon the talent level of your labor force, which in turn is dependent on the quality of place. High-tech jobs, which follow the talent, generate tax revenues to maintain the infrastructure and improve the quality of the city or region.

Based upon statistical analysis and focus groups, Florida has identified a number of factors that influence the quality of place: diversity and openness, tolerance of different lifestyles, "coolness," a vibrant art and music scene, a thick labor market that allows knowledge workers to change jobs easily, a clean and healthy environment, natural and outdoor amenities, a variety of neighborhoods, universities, etc. (Florida, *passim*).

In terms of Florida's research, the high-tech region of the US that may best serve as a prototype for Maine is Burlington, Vermont. That region's success is related to its ability to capitalize upon a decision by IBM to build a semiconductor facility there in 1957 -- by fostering a quality of place that emphasizes environmental quality and its attractive location for outdoor activities. Today, IBM Burlington has 8,000 employees in a labor market area of about 110,000 workers. This small metropolitan area is the primary growth-pole in the State of Vermont. Burlington ranks 17th in the US in terms of its value of high-tech output as fraction of total output. By contrast, Portland, Maine ranks 120th. (DeVol).

Colorado is another region of the US that has attracted knowledge workers because of its natural and environmental amenities, its outdoor recreation opportunities and rural lifestyle. In turn, jobs have followed the people. (Vias).

In terms of environmental quality, natural beauty and the opportunity for outdoor activities, Maine has a lot to offer. The State has much of what Vermont and Colorado have to offer -- plus 3,500 miles of Atlantic Ocean coastline. However, the State lacks a thick labor market and is short on "coolness." Further, Maine is less open to diverse lifestyles than Vermont is.

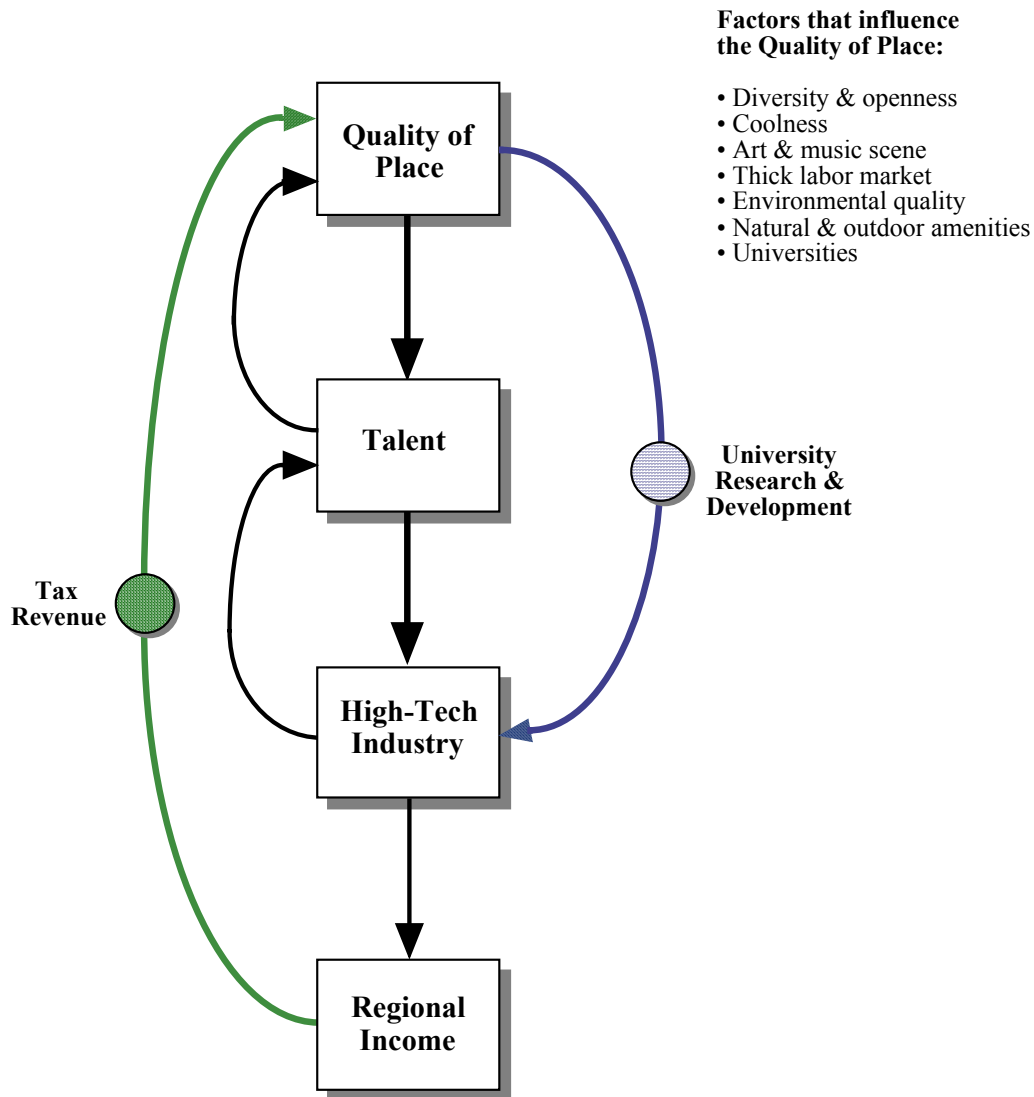


Figure 1. Richard Florida's Economic Geography of Talent

Again and again, Florida emphasizes the importance of talent, technology and tolerance as key factors in economic development. Cities and regions that are successful, that have a significant number of creative people living and working there, are places that rank high in the 3 Ts. His advice to Maine is to develop a strategy that targets a certain kind of talent, certain kinds of creativity. Maine has got to concentrate its investments in its growth-poles (largest cities) and not dilute its finite resources. One of the State's major barriers to success is the lack of strong research universities. Florida suggests that Maine

should focus on attracting or developing a major research institute as a substitute for universities. (Florida, March 2002).

• **Importance of Culture.** The region of Catalonia in Spain, and Barcelona in particular, presents a different approach to economic development that is important for Maine to consider. While the region has less than half of the land area of Maine, it has about five times as many inhabitants. Catalonia exhibits a post-modern pragmatism that recognizes the need for economic development. However, at the same time, the region fiercely protects its culture, language and unique identity. As Michael Keating has observed,

Catalan national identity is sufficiently open to accommodate incomers and to provide a force for integration without closing the society from the outside. Respondents in Catalonia almost invariably come up with two other auto-stereotypes. The first is of Catalans' business acumen and entrepreneurial spirit. The other is the tendency to pactism and compromise and the tradition of *seny* ..., the latter being roughly analogous to the mythical anglo-saxon virtues of common sense, practical wisdom and moderation. (Keating, 7).

The new regionalism that Keating associates with Catalonia tries to find "... the right combination of apparently conflicting qualities -- cooperation and competition; stability and flexibility; craftsmanship and technology." (Keating, 2). In Figure 2, we have attempted to convey the region's economic development strategy by utilizing four Catalan words that seem to capture the implicit logic of the region: *continuitat* (continuity), *ironia* (irony), *mesura* (proportion, order) and *seny* (common sense, practical wisdom, moderation). In effect, we are dealing with two negative feedback loops wherein the institutions, which we have associated with *seny*, of the region play an important role in keeping the system in balance.

Since the 1992 Olympiad, Barcelona has renovated many historic buildings, built nearly 20 parks and opened new cultural institutions, including the Museum of Contemporary Art. Further, the Barcelona Institute of Culture has formulated a strategic plan that boldly proclaims,

The decade of the eighties was marked by political transformation... the nineties have culminated the transformation of the economic structure of the city.... At the start of the 21st century culture must lead a third transformation that will place the accent on contents, on knowledge and on a sustainable development of the city.

The cultural outlook must serve to recover the ground of values, ideas and creative innovation.... The Plan is conceived as a meeting place for the economic, social and cultural agents in order to sketch the cultural future of the city, the knowledge Barcelona. (Barcelona Institute of Culture).

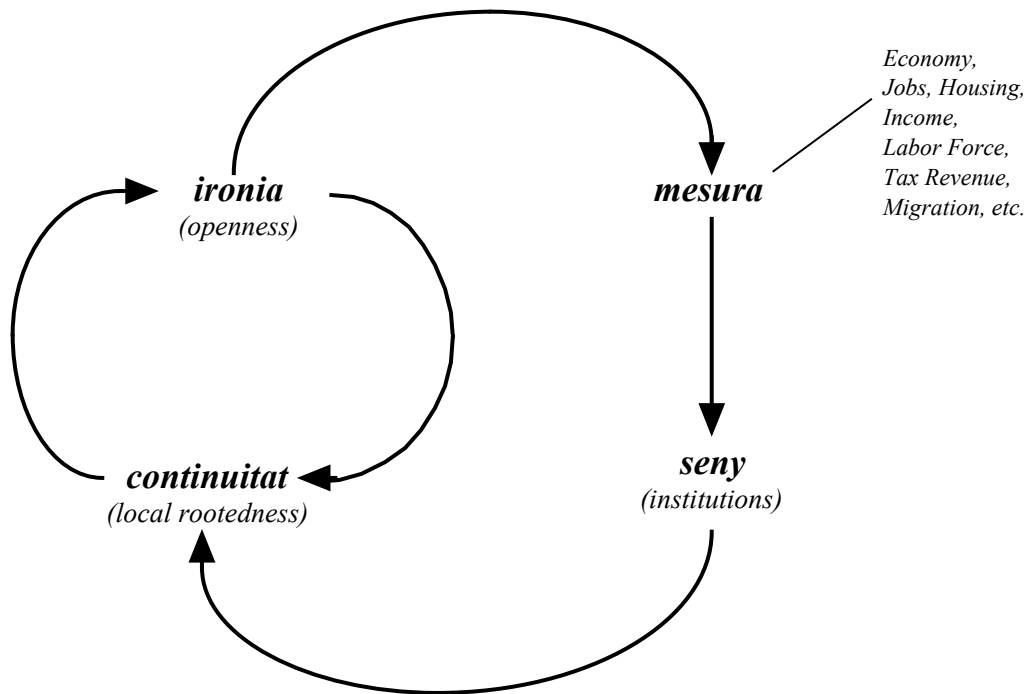


Figure 2. A Perspective on Catalonia’s Economic Development Process

Can Catalonia be open to immigration and the global economy while preserving its culture, its local rootedness? In contrast to Florida's focus on a success-to-the-successful paradigm, the Catalon model pays attention to what is lost as well as what is gained. Such an approach is likely to have appeal in Maine, where many of the populous desire to maintain the rural character of the State. Recently, when the Penobscot and Passamaquoddy Nations (native Americans) proposed that they be allowed to build a gambling casino in the State, Governor Angus King remarked that a casino would be incompatible with Maine's "clean, outdoor, family image." (Cohen & Murphy).

- **Sovereignty and Nation-Building.** Since the 1970s the role played by American Indian nations within regional economies has been shifting. The current process of nation-building within tribes has lead to significant examples of sustainable economic and cultural development and is attracting outside investments to some tribes. In this regard, American Indian nations are increasingly proving they can become contributors to a state’s overall economic health and the prosperity of all its citizens.

Ongoing research has demonstrated that a key to achieving sustainable economic development within tribes is understanding the linkage between the strengthening of

tribal sovereignty and the process of nation-building, which the effective use of tribal sovereignty makes possible: “Sovereignty, nation-building, and economic development go hand in hand.” (Cornell and Kalt, 1998). In the past, it had frequently been asserted that if tribes wished to be sovereign, they must first establish sound, nondependent economies of their own. Research by Cornell and Kalt (1992) indicates that for two basic reasons, such reasoning is now viewed as backwards.

The first of those reasons is based on accountability. Sovereignty brings with it accountability and transforms tribes into primary stakeholders in the outcomes of their own development policies and practices. Secondly, the sovereign status of tribes offers distinct economic opportunities that should be taken advantage of to build sustainable economies, benefiting both the citizens of the tribe and the citizens of the state where the tribe is located. These distinct opportunities include reduced tax and regulatory burdens for industry, unique niches for gaming, and the use of a tribe’s natural and cultural resources as producers of prosperity.

In addition to economic and employment benefits resulting from a tribes successful development policies, a flourishing of tribal success contributes to the human and social capital that resides in a state, thereby contributing to strengthen the quality of life for all residents. The establishment of tribal sovereignty can therefore become a magnet drawing additional investments in both cultural and financial capital to a region.

Although the distinct opportunity tribal governments have for development of a gaming industry is a controversial subject, it must be acknowledged that such an economic development strategy has brought needed investment and has been the engine for new job creation for some tribes, particularly those in key geographic locations. However, gaming as a tribal business strategy has not worked in many cases.

Many tribes are choosing a more diverse approach to economic development and focusing investment on their natural amenities to create jobs and income for their members. “It’s purely and simply good business strategy,” says Manley Begay, director of the Native Nations Institute at the University of Arizona. “It is in the interest of the casino tribes that they diversify. Nationwide, not all of the casino tribes are doing well. In fact, only a handful are.” (Selcraig). Governor Regis Pecos of the Cochiti Pueblo in northern New Mexico describes the Cochiti’s investment in a world-class golf course on their 26,000-acre reservation, which provides the lion’s share of the pueblo’s revenue, as follows, “We want to define the kind of visitor who comes here. We want them to have respect. Golfers represent those kinds of values.” (Selcraig).

A golf resort, with or without an associated casino, will have an affect on the cultural integrity of a tribe’s heritage and identity. Such resorts raise serious questions related to cultural appropriateness that American Indian nations must consider if they are to use their sovereignty most wisely and to their best advantage. Benny Shendo, a Jemez Pueblo member and senior manager of Native American programs at the University of New

Mexico, wonders if pueblos in the State can continue to build casinos, hotels and golf courses without negatively impacting their cultural integrity. “If you look at the pueblos that have done well economically, they have also lost quite a bit in terms of language, culture and ceremonies.” (Selcraig).

Regardless of the choice of tribes to employ a casino strategy, it is well documented by a century of evidence that tribal sovereignty is the only anti-poverty program that works. (Cornell, 2002). States that are genuinely interested in promoting the economic vitality of their neighboring tribes need to ask serious questions about what sort of cooperative policies and practices should be put into place to accelerate the ability of American Indian nations to assert their sovereign powers under the U.S. Constitution. The gains are likely to be mutual.

Achieving such a transition to a new paradigm of interaction will require finding individuals or groups who have a vision of the future and are willing to build new partnerships. (Cornell, 2002). By asserting their sovereignty tribes across the country are proving their ability to innovate, which is often being met by non-tribal governments also breaking with the established ways of doing things and working cooperatively with tribal governments to promote success at the state and regional levels.

Some tribal governments are stepping forward to exercise their inherent sovereignty to build effective governing institutions and the expertise necessary to overcome the inherent challenges to prosperity that their nations face. They are finding it possible to achieve economic success in their nations without compromising the cultural legacies of their tribes.

Since 1998, numerous examples of best practices within American Indian nations have won recognition by the Honoring Nations program of the Harvard Project on American Indian Economic Development. At the heart of the Honoring Nations program is the principle that tribes themselves hold the key to positive social, political, cultural and economic prosperity, and that self-governance plays a crucial role in building and sustaining strong, healthy American Indian nations.

Below we list three examples of the 32 award-winning initiatives of tribal governance honored by the Harvard Project since its inception in 1998. Such examples of innovation may offer a degree of transferability for Maine’s community leaders, both inside and outside of tribal government. Each initiative has been instituted through the innovative leadership of tribal governance. In some cases the degree of success of the tribal initiative has stimulated a cooperative response by non-tribal governments at the federal, state and local levels to work in partnership with them. A fourth example of innovation with potential relevance to Maine involves joint leadership by state and tribal government to promote tribal tourism.

- 1- **Enhancing government-to-government relationships.** The Confederated Tribes of the Grand Ronde, located in the Willamette Valley region of Oregon, have developed an Intergovernmental Affairs Department whose primary function is to interact with other governments on a government-to-government basis. This department's activities have allowed the Tribe to solidify its recognition as a self-governing sovereign with federal, state, local and other tribal governments, which has increased its capacities to make progress in the way of its own nation-building, thereby strengthening the regional economy of the Willamette Valley region. (Harvard Project, 2000).
 - 2- **Wildlife and fisheries management program.** The Game and Fish Department of the Jicarilla Apache Tribe, located in the Rocky Mountains of Northern New Mexico, has earned a reputation recognized by state game and fish agencies as being one of the best of its kind. Their program includes a wildlife management fund for habitat enhancement projects, and has established a commercial elk-hunting ranch that produces over \$1 million for the Tribe annually. (Harvard Project, 1999).
 - 3- **Sustaining and constructing cultural legacies.** Faced with the challenge of raising funds for construction of a cultural center and museum, the Tribal Council of the Pueblo of Pojoaque created the Pojoaque Pueblo Construction Services Corporation in 1993. The Corporation's chartering mandate was to generate revenues for cultural activities and to oversee the construction and maintenance of the Poeh Center and Museum. Today the Corporation bids profitably on commercial projects throughout the State of New Mexico and provides a sustainable funding stream for cultural and artistic activities. (Harvard Project, 2000).
 - 4- **Washington State and tribes join forces to create a tourism strategy.** As part of an ongoing effort to bring economic vitality to tribes through culturally appropriate tourism, the State and tribes of Washington, working together, have hired a tribal member as tourism director to head up a federally-funded Washington state Tribal tourism program. The State of New Mexico provided inspiration to the State of Washington for undertaking an intertribal assessment and provided a model of the need for proactive planning to make tourism successful and manageable for tribes. The overall objective of the partnership between state and tribes is to create one Washington, in which all areas of the state – urban, rural, tribal – share the prosperity. (State of Washington).
- **Vitality of Partnership.** Within the Sierra Nevada region of California and Nevada, the Sierra Business Council is implementing a new approach towards building lasting prosperity for its 700,000 citizens. Founded in 1994, this collaborative partnership has grown to represent five hundred businesses, agencies, and individuals, with the goal of ensuring the region's prosperity for current and future generations.

At the heart of the Sierra Business Council's philosophy is their awareness that over the last decade explosive growth of knowledge-based industries have transformed the fundamental interrelationship between customer, product, producer, and place in our economy. Understanding how their region is tied to the global economy has motivated them to put their differences aside and create a positive, achievable vision for their region.

The members of the partnership, spanning two states and twenty-one counties, determined that environmental quality, and the competitive attribute of quality of place that comes with it, is the key ingredient available to them for achieving the Sierra Nevada region's future economic successes. As a result of their efforts to work together in a partnership, the region is transforming itself into a place where young people and business owners, who might once have been forced to leave the region to find work or expand their operations, are finding they can remain in the Sierra and prosper.

The members of this partnership are articulating an awareness that today's economy is one where talented workers and business owners have a greater flexibility than ever when selecting a location in which to live, work, or operate. That quality of place must be continuously monitored and protected in all community decisions if they are to take advantage of these phenomena by harnessing the opportunities available, for the region's best advantage.

The Council's *1999-2000 Sierra Nevada Wealth Index* includes the following statement:

In today's knowledge-based economy talented people do not stay in communities where their children cannot receive an excellent education or where their air or water is contaminated. In fact, the opposite is true. Business owners and skilled workers move like homing pigeons to the communities with the most outstanding schools, the best health care, the most vibrant artistic culture, the lowest levels of crime and poverty, and the very highest environmental quality. (Sierra Nevada Business Council).

The Sierra Nevada region is composed of small towns and villages, surrounded by agricultural lands, forests, and wild lands. The juxtaposition of town, rural, and wilderness landscapes is what makes the region prized by residents and visitors alike, and is the region's primary attraction as a place to either live or visit.

The quality of place that results from exceptionally high natural and social capital has made the Sierra Nevada region a natural magnet for attracting and retaining knowledge-based workers. Yet the residents are also aware that stimulating too much development in an uncontrolled fashion would be likely to lead to a diminishment of the qualities that residents and visitors both cherish.

Realizing that it is the natural and social capital that are the magnets attracting and holding financial capital within their communities, the Sierra Business Council developed

the Sierra Wealth Index to provide an integrated understanding of the interrelationship between natural, social and financial capital.

The awareness that the Sierra Business Council has for the assets that sustain their region's prosperity has led them to develop this integrated approach to insure that the proper balance of investing in natural, social, and financial capital is maintained in adequate proportions to one another. Tracking the Sierra Nevada Wealth Index keeps decision-makers focused on evaluating the factors essential for maintaining and enhancing the region's wealth, and reminds them that the region's continued prosperity depends directly on their willingness to make wise use of their key assets and to act swiftly to prevent their diminishment.

Building the Sierra Nevada's economy thus requires focusing on the following three forms of capital: (1) social or human capital, (2) natural or natural resource capital, and (3) financial capital. By understanding and tracking all three forms of capital, the Sierra Nevada Wealth Index presents a more accurate and integrated portrait of the region's economy.

The challenge for decision-makers is to design and implement investment strategies for Sierra Nevada communities that increase at least two forms of capital while not diminishing the third. Investments that expand one form of capital, at the expense of one or both of the other forms of capital, will diminish the Sierra Nevada's overall wealth and must be avoided. Part of the mission of the Sierra Business Council is to spread the concept depicted in its Capital Investment Diagram and to suggest that the more that people in the Sierra Nevada begin to evaluate and make decisions on this integrated basis, the more rapidly the region will see wealth increase and communities prosper.

Besides for the obvious difference of arid vs. coastal climates, the State of Maine and the Sierra Nevada region have some interesting commonalities that may warrant consideration. Each region's cultural legacy began with the migration of Native peoples into the area at the end of the last Ice Age and continues today with historic small town communities and villages. Like Maine, the Sierra Nevada region is dominated by an identity rooted in the maintenance of a mostly rural landscape composed of small communities with an authentic cultural heritage.

With attractiveness on a scale not unlike Maine's dramatic Atlantic Ocean shoreline, smattered with several hundred offshore islands, the majestic mountain range known as the Sierra Nevada is one of the most important recreation and tourist resources in North America, as are the coastal and inland regions of the "Vacationland" known as Maine.

In both regions the abundant natural amenities located at the edge of such communities with their rural cultural heritage have proven to be the catalyst that retains residents, attracts in-migrants, and draws visitors from all over the world.

The future of both regions is likely to be based on a wise use of those resources as the most readily available route to economic diversity and the creation of thicker labor markets, as described by Richard Florida, which could stem the tide of out migration currently affecting the region's youth, particularly in the smaller communities.

Only through a conscious approach to taking advantage of the unique opportunities in the transforming global economy is it likely that each region can tackle such problems as providing adequate and challenging employment opportunities for their youth.

The Sierra Business Council's approach offers insights for any rural region blessed with an abundance of natural capital and cultural heritage to most effectively develop itself, using a heightened awareness of the underlying forces being exerted upon it by today's knowledge-based economy and society. In short, both the Sierra Nevada and Maine are bolstered by a rural landscape with significant cultural attributes to create a prosperous economy if investment decisions are made most wisely with a comprehension of their simultaneous implications on all three forms of capital.

An Achievable Vision For Maine

The key to gaining acceptance for a development strategy is instilling the belief that economic growth is achievable without losing the identity of the region as a desirable place to live, work and play. The citizens of Maine have to believe that economic growth and prosperity are obtainable without sacrificing the State's uniqueness and core values.

In fact, to do nothing or attempt to maintain the status quo could result in economic, social and political changes that will dilute the region's uniqueness and core values. Allowing market forces alone to dictate what sort of growth occurs in the State could result in Maine becoming more like one of the other states that it does not want to become. Acceptance of a new strategy depends, in part, on achieving a consensus that self-directed and highly coordinated action is better than leaving the development choices to outside forces.

The authors of this paper suggest that developing a self-directed growth strategy, that is targeted at market opportunities within the new knowledge-based economy, will allow Maine to retain and attract just those individuals who value the existing quality of place that the State offers. Thus, taking specific actions to retain and attract knowledge workers is a proactive way of preserving and enhancing our existing quality of life while still allowing the economy to grow.

Within a knowledge-based economic system, which is reliant upon the creativity of its workforce, investments will increasingly be drawn to those regions that are most able to distinguish themselves as supporters and promoters of diverse cultural identity. Such regions are precisely those places where the most creative members of the workforce are

drawn to. In turn, the presence of these knowledge workers will cause more capital investments to be made in the region.

Aligning one's regional assets with the signals of the knowledge-based economy's driving forces magnifies the region's investments. Economic success in a knowledge-based economy is increasingly associated with those states and regions that are able to link their investment decisions to promoting, protecting or enhancing the natural and cultural capital which defines the unique character of the region.

Devoting public and private resources towards the building of collaborative partnerships that foster self-direction and allow effective institutions to emerge will strengthen economic prosperity and the overall quality of place, which is a fundamental force for allocating investments in the creativity-driven, knowledge-based economy.

How Do We Get There?

There is an often-told story of a tourist who is lost on one of the Maine's many coastal peninsulas. The tourist stops to ask a local how to get to Boothbay Harbor. The native replies, "You can't get there from here." In fact, the response is often true. You can't get from New Harbor to Boothbay Harbor *directly*. First, you must drive north to Damariscotta. Then south on Route 1. Then south, again, on Route 27 to Boothbay Harbor.

The process of defining a strategy for retaining and attracting knowledge workers as a means to achieve economic growth in Maine will be more difficult than getting from New Harbor to Boothbay Harbor. It is one thing to observe and assess the current situation. It is quite another to comprehend the causal factors involved, to understand the dynamics of the system, and then to agree on a series of actions that need to be undertaken in order to achieve a desired reality.

Key factors in such an endeavor are trust, honesty and openness. Consciously or not, we pay heed to certain phenomena, patterns and processes -- and disregard or ignore other areas of our immediate experience. We filter information, recognize associations, make connections with past experience, and develop an understanding of "the way the world is." As the philosopher William James observed in 1907,

Take our sensations. *That* they are is undoubtedly beyond our control; but *which* we attend to, note, and make emphatic in our conclusions depends on our own interests; and, accordingly, as we lay emphasis here or there, quite different formulations of truth result. We read the same facts differently...

What we say about reality thus depends on the perspective into which we throw it. The *that* of it is its own; but the *what* depends on the *which*; and the *which* depends on *us*. (James, 161).

However established, our interpretations, generalizations and conclusions about the facts attach themselves to other parts of our experience, past and future. The ensembles we create may be trivial and unimportant, or meaningful and vital to us. They can be meaningful (or disturbing) to others as well -- exciting, pleasing, modern, inspiring, perceptive, practical, revolutionary, useful, innovative ideas -- at least for the time being. Then, some other meaningful interpretation of the facts emerges that captivates our imagination and works for us and for others.

Ensembles that work very well, that enrich the joint experience of many individuals become institutionalized (and invisible) parts of our culture; they lay the foundation for an arrangement or compromise by which we perceive, think and act -- a system of truth, a framework of ideas that we *think with* rather than *think about*. This is exactly what most people want -- a solid, unwavering foundation for thought and action that they don't have to think about or question. However, such certainty and absolute truth does not exist, and our prevailing framework of ideas, our ideology must be open to review, critique, enhancement and revision. There is no one economic development strategy that will work in all situations.

Reality as such is not truth, and the mind as such is not a mere mirror. Mind ENGENDERS truth UPON reality; and as our systems of truth are themselves part of reality (and indeed for us its most important parts), we may say that reality in its largest sense does grow by human thinking. Hence arises the idea that our minds are not here simply to copy a reality that is already complete. They are here to complete it, to add to its importance by their own remodelling of it, to decant its contents over, so to speak, into a more significant shape.

In point of fact, the USE of most of our thinking is to help us to CHANGE the world. We must for this know definitely WHAT we have to change; and thus theoretic truth must at all times come before practical application. But ... what we here call theoretic truth is itself full of human contradictions. It will be irrelevant unless it fits the momentary purpose in hand, as our ideas will be irrelevant when they do not fit the reality -- the two factors must fit each other. And moreover it turns out that the theoretic truth upon which men base their practice to-day is itself a resultant of previous human practice, based in turn upon still more previous truth, and so in indefinite regress... (Bjorkman).

At the individual level, the process by which we accept new ideas is slow, conservative and incremental. We already have an existing mass of opinions, which have served us well in the past, and we are loyal to them. A new experience, then, contradicts or strains our belief structure. If we do not ignore or reject the experience out of hand, we struggle inwardly to fit the new idea in with our existing worldview, preserving as much of our previous beliefs as we can.

James advanced pragmatism as a method for settling metaphysical disputes in order for us to move forward to consider more important questions and, in effect, change the world. James asked what is the cash-value of an idea? He encouraged us to progress from paying attention to the facts, to theoretic truth and then onto practical application -- and, thereafter, returning to observe and assess the effects of our actions on reality.

We plunge forward in the field of fresh experience with the beliefs our ancestors and we have made already; these determine what we notice; what we notice determines what we do; what we do again determines what we experience; so from one thing to another, altho the stubborn fact remains that there *is* a sensible flux, what is *true of it* seems from the first to last to be largely a matter of our own creation. (James, 166).

John Dewey's instrumentalism extended James's pragmatism in a different direction. Dewey defined knowledge as successful practice; it grows out of experience. Whenever the real world challenges our beliefs, whenever a problem arises, the first step in our inquiry should be to diagnose the situation and formulate the possible means for dealing with the problem. These hypotheses are neither true nor false, but rather instruments in the inquiry. Only when we have successfully reorganized the situation, when our hypotheses work, can it be said that we have knowledge.

More recently, Richard Rorty has led an effort to update pragmatism and refocus philosophical method on developing a new vocabulary and describing useful metaphors. As Rorty puts it, "Interesting philosophy is rarely an examination of the pros and cons of a thesis. Usually it is ... a contest between an entrenched vocabulary which has become a nuisance and a half-formed new vocabulary which promises great things." (Rorty, 9) Rorty continues:

The method is to redescribe lots and lots of things in new ways, until you have created a pattern of linguistic behavior which will tempt the rising generation to adopt it, thereby causing them to look for appropriate new forms of nonlinguistic behavior, for example, the adoption of new scientific equipment or new social institutions. This sort of philosophy ... works holistically and pragmatically. It says things like "try thinking of it this way".... It does not pretend to have a better candidate for doing the same old things which we did when we spoke in the old way. Rather, it suggests that we might want to stop doing those things and do something else. (Rorty, 9)

In the spirit of James, Dewey and Rorty, the authors propose a series of idea generating workshops that will attempt to define a new vocabulary that can be used to think and talk about economic development issues in Maine. One of the goals is to encourage new ways of thinking about what we want to achieve and how we might achieve it -- as opposed to contesting the entrenched vocabulary and sincere efforts by many agencies to foster economic growth. A further goal is to engage a system dynamics modeler to follow the discussion and attempt to codify the shared knowledge in a policy model that can be used to screen and evaluate possible strategies.

Within the system dynamics tradition, David Andersen and George Richardson have developed some very useful scripts for group model building. Further, John Shibley uses a Learning Action Matrix as a template to foster continuous learning and achieve real results in a group setting. He proposes four overlapping stages or zones of work. First, observe the events and patterns of behavior that characterize the current reality. Next, assess the underlying causal structure and mental models that determine the behavior of the system. Third, develop new structures, mental models and a shared vision that describes the desired reality that the participants would like to create. And, finally,

implement actions that promote new patterns of behavior; then, observe the results and loop back through the Learning Action Matrix.

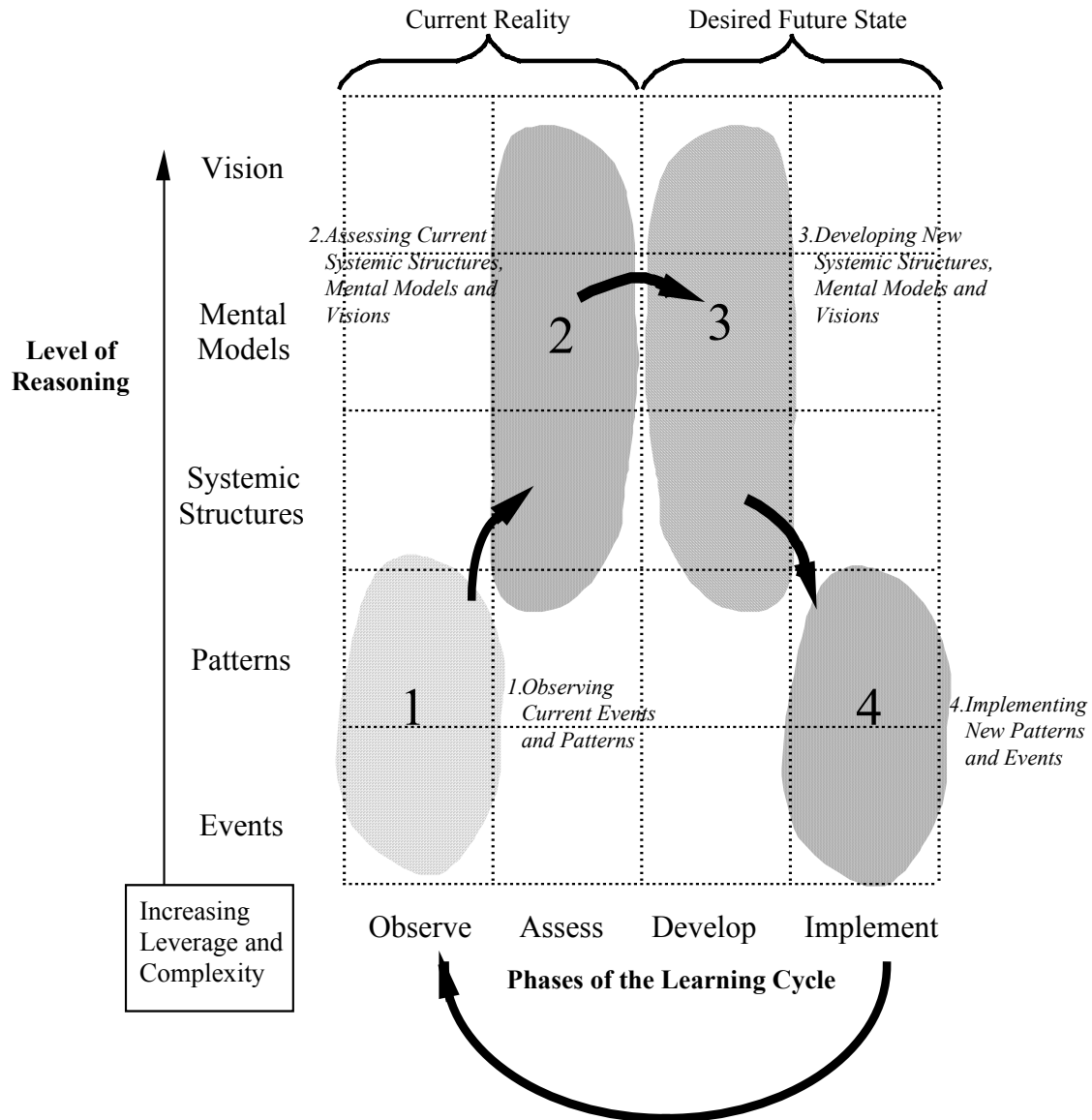


Figure 3. Learning Action Matrix
(Used by permission of John Shibley)

In terms of this framework for learning and reasoning, the first phase of the idea generating workshops will be the most inclusive. Participation will be sought from a diverse audience to diagnose the current situation and identify Maine's strengths and

weaknesses. The second phase of assessment is likely to involve fewer participants. Presentations by guest speakers will be used to stimulate discussion. Model development would begin during the second phase. Then, in the third phase, a prototype model will be used by participants to rearrange the furniture and agree on some possible strategies for retaining and attracting knowledge workers. Following an analysis of these scenarios, all stakeholders will be invited back to further discuss particular, promising strategies. After incorporating participant feedback, a report will be written that sums up the experience and proposes particular actions. Depending upon the degree of support for the agenda, implementation funding will be sought thereafter.

Conclusions

The process of modernization and change has always been fraught with uncertainty and the risk of losing what we most value. However, one is more comfortable about taking a risk when he/she has developed an understanding of the way the economy works and how it interacts with the culture and natural environment of the region. In this context, system dynamics models are most valuable instruments. They help us select strategies that are in the long-term best interest of the region and policies that avoid unpleasant externalities.

Unique complementarities exist within today's most successful regions. Those places that understand the forces that advance or inhibit their success in the knowledge-based economy are positioned to foster a cooperative environment that encourages diverse groups within their regions that contribute to the region's success. This requires an openness to diversity and a regional identity that includes all ethnic groups from recent immigrants to American Indian nations. Successful regions are realizing that it is not so much about competition as it is about cooperation. They are coming to recognize the significant contribution that these diverse groups play in building the quality of place for their region as a whole.

Strengthening one's quality of place has been demonstrated as an essential ingredient for competing with all other regions in growing one's economy. Further, quality of place is highly dependent upon the cultural diversity that exists within any particular region. Thus, it follows that regions seeking to increase their economic vitality should consider strategies that promote diversity -- from strengthening the Native American tribal governments, to encouraging tolerance of diverse lifestyles and preservation of ethnic neighborhoods in cities. Increasingly diversity has proven to be a source of strength and opportunity in the new economy.

Taking a more self-directed route to development may better protect Maine's cultural legacy and uniqueness and thereby allow for a more focused economic growth strategy. If a development strategy can be devised that allows for economic growth that also protects and reinforces the State's cultural identity, it would be to the mutual benefit of

both those who advocate cultural preservation and those who argue for growth as the priority.

Existing development strategies in Maine do not have a particular emphasis on retaining or attracting knowledge-based workers, nor on building the sort of cultural diversity that creative workers increasingly demand. Instead the State has an out-migration problem. Maine's brightest and most creative individuals are attracted to other regions (Boston, New York) that offer a diversity of lifestyles and more economic opportunity. If the State is to reverse this emigration of young workers, it needs to amplify its traditional development efforts, associated with attracting new businesses to Maine, by adopting complementary new economy strategies.

The first factor that must be acknowledged in crafting new economy development strategies is that today's younger adults are increasingly part of a "creative class" that do not place emphasis solely on wages to determine where they prefer to live. New economy based development strategies must focus their attention and concentrate their efforts on building those aspects of a Maine society which the State's younger adults identify as missing, or less available here than elsewhere.

If properly taken advantage of, the knowledge-based economy and the creative-class workforce offer unique opportunities to manage Maine's growth. The attractiveness of such a strategy lies in understanding that the lifestyle demands of the creative-class workforce make it possible for Maine to preserve its rural landscape and create the high quality economic opportunities long sought after.

The new capitalism of the knowledge-based economy indicates that success breeds success. Regions with high natural amenities have a demonstrated comparative advantage over other less endowed regions. To some extent Maine is participating in the new economy through the amenity draw which the State has for older more established workers and retirees. However, the State's economic malaise lies in its inability to deliver the cultural amenities that the younger segment of the workforce demand.

It is our hope that the case studies presented will open provocative discussion, thought and enthusiasm about the direction that the State of Maine should follow in order to achieve economic prosperity in the decade ahead -- particularly from an audience that have not been invited to participate in the past, or not seen themselves as essential cogs in the wheel of economic development.

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