

Rural Development Strategy: 1990s Context and Constraints

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In this comprehensive essay on rural economic development, authors David Vail and Michael Hillard describe key trends and past changes which are shaping rural America's--and in particular, rural Maine's--economic future. They conclude with seven hypotheses about rural Maine's socioeconomic crisis, and call for the development of a state-level strategy for rural development that fully accounts for Maine's varied resources, geography, and opportunities. An abbreviated version of this essay was previously published by the Maine Rural Development Council in its Fall 1995 newsletter, Rural Connections .

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This essay sets the framework for an on-going research project on "Human resources for sustainable rural development in Maine," sponsored by the Maine Center for Economic Policy. For all its unique features and qualities, Maine is subject to the same national and international economic forces and the same federal budget cuts and policy reforms that are causing economic shocks to all of rural America. This essay describes key trends and changes of the recent past which will shape rural Maine's economic future and constrain the state's strategic options. The essay is meant as a problem statement on which to build a research agenda, not as a completed project.

I. Why a distinct rural focus?

Ruralness: Changing meanings, diverse conditions

A recent Government Accounting Office publication (1992) presents a stereotypical definition of rural places: they are remote from metropolitan areas, sparsely populated, and economically dependent on one or a few natural resource-based industries. Rural sociologists would add shared cultural traditions to the definition (Flora, et al ., 1992).

In reality, both the objective conditions of rural regions and people's subjective understanding of ruralness are changing. Helipads in forest clearings and instant global communication have radically diminished the remoteness of Maine's north woods. In any case, images of northern and downeast Maine's remoteness are largely mythological, since these regions have been tied to larger metropolitan economies as raw material suppliers and tourist destinations for well over a century. Commercial tourism and recreation have raised seasonal population densities to the congestion point at Old Orchard Beach, Bar Harbor, and Ripogenus Gorge. And economic specialization has given way to multiple, competing demands on Maine's forest, mountain and coastal ecosystems.

Following Census Bureau definitions, Maine's territory is overwhelmingly rural and its residential pattern largely non-metropolitan. (The Maine State Planning Office divides the state's organized territories into 36 "extended communities," 30 of which are categorized as rural. "Rural" here means a population density below 100 per square mile on over half of the land area and a "core settlement" with fewer than 25,000 residents. [MRDC, 1995]) However, rural Maine is anything but homogeneous. In terms of both current economic conditions and future economic prospects, dramatic differences exist between affluent bedroom villages on the urban fringe, like Cornish and Readfield; coastal and inland recreational hubs, like Boothbay and Greenville; mill towns like Jay and Rumford; and remote economic backwaters like Eagle Lake and Lubec. Some of these places will almost certainly be advantaged by market forces and by the American economy's structural and technological changes in the 1990s, but other areas will just as surely be disadvantaged. Discussions about rural development strategies should account for fundamental differences in economic geography.

From rural distress to structural crisis

Statistical distress indicators consistently show that economic conditions in rural America have been chronically worse than in metropolitan areas: per capita income is lower; unemployment and poverty rates are higher; housing quality is inferior and rural areas tend to be "repositories for the nation's least educated, lowest skilled workers;" nationally, the earnings of forty-two percent of rural workers, and over half of young workers from 16 to 24 years, fall at or below the poverty line for a family of four (Glasmeier and Conroy, 1994).

These patterns hold in Maine. In good and bad economic times, rural unemployment rates remain more than two percentage points above urban levels. In chronically distressed regions, such as Knox and Washington counties, unemployment is more than double that of southern coastal areas. Rural poverty is four percentage points higher than urban and in vast interior and downeast regions it never seems to fall below 15% of the population. Fewer rural than urban adults complete high school (76% versus 81%) or go on to post-secondary education (40% versus 47%) (MRDC, 1995). The reality behind the "two Maines" cliché is shown by per capita income levels in York and Cumberland Counties, which are 24% higher than in the rest of the state (Watkins and Allen, 1994).

Nationally, sustained economic growth in the 1980s coincided with widespread rural stagnation, so that relative rural wages and incomes deteriorated further. A similar widening of regional wage and income gaps occurred in Maine. Seventy percent of high wage jobs created in the 1980s were concentrated in York and Cumberland counties (MRDC, 1995; Watkins and Allen, 1994). Glasmeier and Conroy sum up in stark language: "These solemn statistics add up to one undeniable fact: Rural workers are working harder, for less pay, in less stable and often less fulfilling jobs than are urban workers" (1994).

The causes behind pervasive rural deterioration in the 1980s are complex. For example, depressed incomes and persistent poverty were due in part to the low geographic and occupational mobility of displaced rural adult workers, combined with (real) cuts in the "social safety net" expenditures upon which so many rural people depend. But the dominant and inescapable forces underlying rural deterioration appear to be fast paced technological

transformation and international economic integration, as suggested by a 1994 conference titled: Global Squeeze on Rural America. A consensus emerged from analysis presented there:

The 1960s and 1970s witnessed significant growth in non-farm jobs in Rural America based on the movement of factories out of major cities. These jobs grew most rapidly in those small towns and communities where wages were low and labor abundant, land [and other natural resources] cheap, and communities organized to create a receptive business climate . . . But dramatic changes have been occurring in the international economy during the 1980s and 1990s . . . [and] there are reasons to suspect that these change will have a disproportionately negative effect upon Rural America (Glasmeier et al., 1994).

The Maine Rural Development Council offers an analogous assessment in its overview of social and economic conditions in rural Maine:

The economic role of rural America has undergone rapid changes in recent decades and will continue to do so. Capital, raw material resources and technology are increasingly mobile; they can go anywhere globally where a greater competitive advantage can be found. Rural America is losing its relative advantage [based on cheap labor and raw materials] as a result of such constant change and evolution of the global economy (1995).

The pattern of the 1990s is not completely clear. In Maine, Charles Colgan's index of regional income inequality shows a narrowing of differentials from 1989 to 1993. One explanation is that this reflects a cyclical pattern--the southern and coastal economies boomed in the 1980s but were hardest hit by the latest recession-- overlaid by the concentrated spatial impact of defense spending cuts. An alternative explanation to be explained by this project is that a new mix of long term economic forces is reshaping regional economies within the state.

Rural development strategy: To what end?

The previous discussion highlighted unique features and severe problems that justify paying special attention to rural regions in economic policy design. The purpose of this essay is neither to evaluate existing policies nor to recommend particular reforms, but rather to contribute to a dialogue about effective development strategy. It is useful therefore to sketch what the purpose of such a strategy would be--the public interests which competitive market forces and self-interested private actions seem incapable of attaining. We expect that a public debate about rural development priorities for Maine would converge toward the objectives set out by the United States Department of Agriculture's Economic Research Service (1991):

- Reduction of the rural/urban gap in material living standards;
- Reduction of persistent high rural poverty rates;
- Improved socioeconomic viability of vulnerable rural communities;
- Preservation of rural areas' unique cultural and natural character;
- Survival of family-based farming, fishing and other natural resource-based enterprises;
- Enhanced rural contributions to the national "well being"; and,
- Resource conservation and environmental protection.

Our particular concern is to foster rural economic development that is sustainable over the long term. Simultaneous achievement of all the preceding goals would qualify as sustainable development.

II. International integration and national trends: The end of the “low road”?

During the “rural renaissance” of the 1960s and 1970s, a major expansion of branch plant manufacturing significantly increased rural employment and average earnings. This “engine of growth” offset the continuing long term decline in natural resource-based employment. It buoyed many local economies and contributed to a temporary reversal of long term outmigration. By and large, it was “low-skilled, labor-intensive industries that moved to rural areas in search of low cost production sites” (Glasmeier and Conroy, 1994). But, even though relatively low rural wages were a magnet to multinational corporations, their jobs typically offered higher wages and better benefits than the pre-existing employment mix.

In the 1980s this process went in reverse, initially due to a cyclical decline in demand for manufactured goods during the severe 1981-82 recession and to an overvalued U.S. dollar, which encouraged imports of labor-intensive goods. Rural branch plant operations based on hard working, low wage labor were losing competitiveness vis-a-vis Third World countries where labor costs were far lower and workers often better trained. A widespread short run reaction by parent firms was to slash real wages and benefits in their U.S. plants. In a setting of wholesale corporate restructuring, however, many branch plants were ultimately shut down or jobs automated out of existence. Maine experienced this phenomenon with a vengeance in its shoe, textile and garment industries. In a globally integrated economy, “Rural America’s traditional comparative advantages--cheap labor [and land], a lax regulatory environment, and pro-business culture--are no longer enough” (Glasmeier and Conroy, 1994). Needless to say, “global [capital mobility] also reinforces an enormous asymmetry of power between local economics and international firms” (1994). For better or for worse, rural America may have reached the end of “low road” manufacturing growth.

Rural education: An apparent paradox

It seems intuitively obvious that the path from a low road to a high road economy -- one based on high skill, high productivity, high wage work--leads through improved rural education and training. This is what John Fitzsimmons, President of the Maine technical college system, had in mind when he noted that though less than half of Maine’s adult workforce has any post-secondary education, 75% of the state’s new jobs require post-secondary education. By the year 2000, he predicts that figure will increase to 85% (Fitzsimmons, 1993). David McGranahan, summarizing a decade of national research findings, comes to a contradictory conclusion:

Evidence of a dramatic new rise in job skill requirements is weak. . . The analysis . . . provides no support for the thesis that rural area economic growth was impeded by the low education levels of rural workers in the 1980s. . . While raising individual education levels improves individual opportunities, and raising the nation’s education level should make us more competitive internationally, there is little evidence that raising local education levels is in itself a key to rural employment growth (1991).

In this light, Fitzsimmons seems to be describing educational requirements for an optimal “high road” growth path--with maximum numbers of quality jobs-- not the actual mix of jobs created during the current economic recovery. Our point is that more and better human resource investments, broadly defined, are a necessary but not a sufficient condition for improved rural employment opportunities. Given the predominance of unskilled and semi-skilled jobs offered by most rural manufacturers, natural resource industries, and service employers, Maine’s rural population is not significantly undereducated. One indication is that the private return to investment in post-secondary education is 30% lower for people who remain in rural areas, compared to those who migrate to metropolitan areas.

The deeper problem in the 1980s, according to McGranahan, was “ruralness” itself:

There is an alternative explanation for the rural crisis. The remoteness and sparsity of rural settlements may make them largely unsuitable for complex manufacturing operations, industrial research, or other activities requiring relatively high-skill employees. Thus rural areas lost out in the 1980s more because they were rural than because rural workers had low education levels. . . The types of activities that most require highly educated workers are also those that tend to require substantial skilled labor pools, access to specialists and information sources, and other social and informational infrastructure generally available only in larger, more urban areas (1991, emphasis added).

What do national trends mean for Maine?

How these larger trends and forces are playing out in Maine and what form an effective strategic response would take are questions we want to help answer through our current research. Our intuition, though, is that the national picture sketched above holds in general for Maine, with some qualifications. We simply offer three speculative observations without supporting documentation.

First, Maine has no coherent state-level strategy for rural development, much less a strategy fine-tuned to the widely varied resources, opportunities and limitations of different regions. Notably, the Maine Economic Growth Council has not attempted to articulate the rural and regional dimensions of its economic development vision or of its benchmark progress indicators.

That does not mean there is not action in the rural development arena. Indeed, there is some exciting institution building and experimental activity outside the state’s formal policymaking and administrative apparatus. The USDA-funded Maine Rural Development Council is becoming a prominent voice for rural interests and a catalyst for local action. The Western Mountains Alliance and the Sunrise Development Council exemplify the upsurge in government-private-non-profit collaboration in regional development planning. Many of Coastal Enterprises, Inc.’s small business development initiatives have a rural flavor. And community activities in Farmington and Cobscook Bay, funded by the Aspen Institute via the Maine Community Foundation, are trying to shape consensus visions of local development. (One of our research objectives is to catalogue these efforts and assess their effectiveness.) These are encouraging but piecemeal ventures, and Maine lacks a concerted state-level strategy to reshape the rural social

and economic environment in a way that can attract, retain and “home grow” large numbers of high road enterprises.

Second, although we have just begun to analyze Maine’s shifting pattern of rural branch plant manufacturing, it seems clear that our manufacturing and non-manufacturing sectors have been heavily dependent upon the natural resource base. On the positive side, extraordinary natural amenities, combined with diligent, low cost labor, support two of rural Maine’s core growth sectors: tourism/recreation and retirement. In the past few years, there has also been rapid growth of producer service exports, particularly corporate back-office operations like telemarketing and data processing. These tend to be concentrated in a few naturally attractive favorably situated towns, not in the remote hinterland. There are grounds to doubt the sustainability of economic growth and employment in less favored rural areas, given increasing congestion of the most attractive tourist sites, an imminent shortfall of mature spruce timber, deterioration of overall timber stand quality, intense national and international competition in bulk farm commodities, and the catastrophic depletion of commercially valuable marine fish stocks.

In 1994, every candidate for governor proposed a plan to expand value added industries based on Maine’s natural resources. They agreed that this must be the foundation of future rural economic vitality and quality job creation. Such a strategy seems to make eminent sense, but it is uncertain that the quality and extent of the natural resource base can even sustain current processing volumes for much longer, still less support expanded capacity. Fulfilling the promise that “no fish shall leave Maine with its head on” means little unless there are more fish.

Third, we suspect that rural Maine depends more heavily on petroleum-based energy than do most other rural states. This dependency is rooted in a nexus of a cold climate, a relatively energy intensive industry mix, long average commuting distances, and the lack of effective alternatives to car and truck transportation for commuters, tourists, and shippers. For the past fifteen years, we have lucked out with cheap oil and gasoline as well as deregulation of interstate trucking. Our rural economy’s vulnerability to supply shortages or escalation oil prices might become painfully evident over the next ten to fifteen years.

III. The federal non-strategy: Rural needs versus realities

A strong case can be made that the federal government should lead the rural revitalization effort. Individual states, and even more so individual communities, have minimal leverage over the international market forces, sweeping technological changes, and corporate locational strategies that are reshaping rural economies (GAO, 1992; Glasmeier and Conroy, 1994).

A succession of presidents from both parties vigorously promoted the North American Free Trade Agreement and the General Agreement on Tariffs and Trades, both of which extended the scope of free trade and capital mobility. The public interest rationale for these treaties rests on forecasts of net job creation, higher aggregate productivity, and improved consumer welfare. But there are losers as well as winners, especially in the short run (in economic jargon, this is not a “Pareto improvement”). In our view, national leaders have an ethical responsibility to deal with the adverse shocks these new game rules cause to industries, communities, and working people. (Pertinent to rural Maine’s situation, the evidence suggests that the adverse economic impacts of

increased capital mobility and freer trade hit older working people and women workers hardest [Meyer and Burayidi, 1991].) Their responsibility, however, is not simply to correct inequities. We also face a major national challenge to improve dynamic efficiency by facilitating the movement of resources, especially working people, to new, higher productivity uses. Indeed, this twin equity/efficiency challenge is reflected in past federal legislation that established trade adjustment assistance and displaced worker programs. The problems are that their scope has always been trivial relative to the magnitude of need and that they have never been well integrated into regional and local redevelopment strategies.

We believe there is a powerful case for more extensive federal involvement in rural economic revitalization: first in establishing common “game rules” to help states and localities avoid “negative sum” competition for branch plant investment; and second in helping finance state and local economic “capacity building,” especially investment in human resources and modern physical and social infrastructures. The point seems to be moot, however, given the powerful current of opposition to any form of federal “industrial policy.” In any event, we are not advocating top-down micro-management of state and regional planning efforts by federal agencies. Similarly, we do not believe that a uniform state blueprint, “made in Augusta,” can meet the development needs of Maine’s diverse rural regions.

The fact that there is a strong case for an enlarged federal role in rural economic revitalization does not mean it will happen. Beth Honadle, a veteran federal rural policy advisor, notes that “rather than formulate a coherent strategic policy for rural development, the last several presidents have substituted rhetoric and procedural changes for real action” (1993). Budgets have been slashed, both for targeted rural programs and for transfer payments, upon which rural America is heavily dependent. According to Honadle, “realistically, there is relatively little that rural advocates can do to turn around the situation” (1993).

National support for rural social and economic development has eroded since the late 1970s, “thwarted by at least five factors: inaccurate rural stereotypes, perceived conflicts between rural and urban interests, competition among rural advocacy groups, declining rural [voting] population, and fragmentation of rural development within Congress” (Honadle, 1993). Further, for much of the post-War period, the political clout of farm and agribusiness lobbies has reinforced the Congress’s longstanding tendency to view agricultural policy as a proxy for rural development policy. Over the long term, this has been extraordinarily costly and ineffective. More recently, presidential and congressional preoccupation with budget cutting, with intractable urban problems like drugs, poverty and violence, and with the post-Cold War international order has distracted attention from America’s rural crisis.

We find two aspects of this federal policy failure frightening. First, while all industrial societies face challenges of regional and industrial restructuring, the USA is virtually alone in having no coherent national response. It is ominous that “America’s most important industrialized competitors, Japan and the European Community, have developed long-term strategies to assist their affected workers, communities, industries, and regions in adjusting the evolving global reality” (Glasmeier and Conroy, 1994).

Second, individual states--with severely limited capacity for economic self-determination--have had to shoulder greater responsibility for their economic fates. This has led to some impressive planning initiatives and policy innovations, which we hope to catalog and evaluate in our research. However, the great danger in this situation is that states and communities, desperate to hold onto existing jobs and to stimulate new ones, are lured into "beggar thy neighbor" branch plant chasing. While "firms knowingly play communities off against each other," governments make major outlays, incur revenue losses, and relax socially beneficial regulations to attract or retain low road employers (Glasmeier and Conroy, 1994). This vicious circle, justifiably labelled a "race to the bottom," is a temptation that previous writers in this Review have warned against (Ballard et al., 1994). But, absent a consistent framework of national standards, that is the name of the game. Past experience suggests that the playing field is tilted against Maine, but how can we avoid playing?

IV. Implications: Constraints on Maine's rural development strategy

Ultimately, the purpose of our research is to contribute ideas to the discussion of cost-effective measures to foster Maine's sustainable rural development. However, this essay concludes on a less affirmative note by sketching seven hypotheses about rural Maine's (and rural America's) socioeconomic crisis:

1. Individual states, facing powerful external forces and a bankrupt federal policy, have relatively little leverage over the economic future of their rural regions. Nonetheless, we believe the states that most successfully accomplish the transition to the "high road" of quality jobs will be those with coherent regional development strategies. (Quality jobs generally require high skills levels, offer opportunities for continuous learning and career advancement, are challenging, well compensated and secure.) Such strategies must be outstanding at building "basic capacities:" human capital, information networks, and physical infrastructures. But while excellent public investment in the basics is a necessary condition, nearly every state has given them priority. Thus, it will be difficult for Maine to gain a decisive edge in these areas. In other words, better schools, telecommunications and roads are not sufficient to significantly induce more quality job creation. That requires, in addition, well designed and carefully targeted programs to attract and home grow businesses that are committed to high performance work organization. (High performance work organization is shorthand for a cluster of features, including: worker participation in management; substantial worker education and training; employment security; a narrowing of the gap between workers and managers; and an active role for unions or other bodies representing front-line workers [Applebaum and Batt, 1994].)

2. Mainers have traditionally considered their town to be their community, but many of our small towns are becoming socially and economically obsolete. In providing public services, "there will be more emphasis on regional approaches . . . as the costs of doing business over the many tiny units of government becomes prohibitive" (Honadle, 1993). The strategic importance of agglomeration economies (or "critical mass") in attracting "high road" investors has already led some Maine towns to form regional planning clusters and to coordinate the development of infrastructure, industrial sites, business services, skill pools, and even cultural amenities. The Sunrise Development Council, Androscoggin Valley Council of Governments, and Midcoast

Council for Business Development are examples (Bradshaw, 1993; Korshing, ed., 1992; Mt. Auburn Associates, 1995).

3. It seems clear that many of Maine's remote, sparsely populated areas do not have and cannot feasibly create significant economic development advantages. This is not a new dilemma in Maine's history but it requires serious and probably painful consideration. Given the state's limited resources, should we "build on the best" (regions with the best prospects for attracting private investment), "build up the worst" (regions with poor economic prospects), or perhaps follow a triage strategy in targeting developmental resources, as suggested by Daniels and Lapping (1988). Triage in a medical crisis means letting patients who cannot survive die (humanely), leaving those who will survive without major assistance to heal largely on their own, and concentrating scarce resources on patients whose prospects can be most dramatically improved through aggressive intervention. The analogy to regional economic strategy should be clear.

In making such a basic strategic choice, we should be aware that "a statewide economic policy for the future that concentrates on encouraging expansion of selected high-wage, high-growth industries probably will intensify the existing economic divergence between Southern Maine and the rest of the state" (Colgan, 1994).

Difficult judgments must be made. Should narrow economic calculations of return to investment dictate the allocation of state development funds? If so, much of rural Maine would probably be bypassed. Should we give heavy weight to maintaining viable rural communities and working landscapes, as "public goods" which benefit all of society? How can the value of these "beneficial externalities" be measured? Facing an uncertain future, should we follow a "precautionary principle," erring on the side of more investments to preserve rural socio-economic institutions and ways of life? Is there a collective obligation to provide the residents of economic backwaters with a tolerable material living standard where they are, or should incentives be used to encourage migration to more promising economic locations?

4. Without doubt, both more and more effective investments in formal education, vocational training, school-to-work transition, and adult learning are crucial. In particular, we should keep in mind that today's adult workers will be powerfully affected by industrial restructuring and technological change--and that they will still make up most of the rural workforce ten and even twenty years from now. It follows that we must be prepared to invest in tens of thousands of Maine's adults. But absent a strategy to stimulate the demand side of the labor market, these expenditures will yield a low return to the local economy. They may even be counter-productive, to the extent that they speed the exodus of the "best and the brightest" rural youth and adults (Hillard and Vail, 1993).

5. Several rural sectors which have grown rapidly in the past decade and appear to have further growth potential are not promising sources of quality jobs. This is particularly true of the "three r's"--recreation, retirement, and residence (i.e., commuter villages). As these sectors are currently structured, most of the new employment has been low skill, low pay jobs with little opportunity for on-the-job learning or career advancement (Fagan and Longino, 1993; Frederick, 1993). (According to Fagan and Longino, the average yearly earnings of people who provide

goods and services to retirees is only \$14,900, an average that includes highly paid professionals like doctors, lawyers, and real estate brokers.) Shifting to the “high road” of quality jobs in expanding sectors like tourism, retail, personal services, and elder care will be particularly challenging.

6. At the firm level, higher quality jobs means fewer jobs whenever rising labor productivity outstrips output growth. For communities this creates a potential conflict between quantitative employment creation and quality jobs through high performance work organization. It should be clear that the long term solution is not to save low wage, low skill jobs by discouraging businesses from restructuring, upgrading workers’ skills, and modernizing technology. But the short term solution is not obvious.

7. As a gubernatorial candidate, Angus King expressed the conventional wisdom of the 1990s, asserting that Maine must become an “entrepreneurial state” that integrates with the wider world, embraces change, pursues new opportunities, and accepts risk. This imperative presents rural development strategists with a dilemma: the entrepreneurial disposition stands in sharp contrast to the values and behavioral traits of many rural dwellers. They tend to be less captivated by the goal of economic growth and more concerned about the downside risks that rapid, cumulative change poses for their communities’ “social ecology” and natural environment. They also express a stronger preference than urban dwellers for local self-reliance, as opposed to a total immersion in the global economy (Daniels, 1991; Meyer and Burayadi, 1991).

Finally, the prevalence of self-employment and small firms in much of rural Maine should not be mistaken for a sign of latent entrepreneurial dynamism. In our experience, a very large proportion of these business operators are poorly informed about new technologies, management methods and market opportunities. Their marginal economic existence reflects the fact that they are chronically behind the curve of change. Transforming this situation would be no mean feat, especially since many people are self-employed as a survival strategy: they cannot find good local jobs. Finally, one must be skeptical whether Maine’s steadily aging rural population is a promising source of vigorous entrepreneurship (McGranahan, 1991; Watkins and Allen, 1994).

Perhaps we are in for a surprise and the adverse rural economic trends of the past 10-15 years will give way to good times in the late 1990s. We certainly lack the evidence to “prove” our seven rather gloomy hypotheses. Nonetheless, we conclude with the hypothesis that Maine urgently needs a comprehensive and innovative rural development strategy. Our current research is designed to test that thesis and propose some features of such a strategy. Of course, “the timing is all wrong”: the international forces shaping Maine’s economic future are beyond our control; shifts in American ideology and political power favor shrinking government and expanding market hegemony; and the cupboard is bare in both Washington and Augusta. None of these tendencies is likely to be reversed soon, so we might as well get busy doing what needs to be done: “there is no time like the present.”

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References:

Applebaum, Eileen and Rosmary Batt. 1994. *The New American Workplace*. Ithaca: ILR Press.

Ballard, Steven, Stephanie Seguino and Charles Colgan. 1994. "Economic development opportunities in Maine." *MPR* May. (3)1: 15-25.

Bradshaw, Ted. 1993. "Multicommunity networks: A rural transition." in *Rural America: Blueprint for Tomorrow*, special issue of *The Annals of the American Academy of Political and Social Science*. 529: 164-175.

Colgan, Charles. 1994. "Grading the Maine economy." *MPR*. December. (3)3: 55-62.

Daniels, Thomas. 1991. "The goals and values of local economic development strategies in rural America." *Agriculture and Human Values* (8)3: 3-9.

Daniels, Thomas and Mark Lapping. 1988. "The rural crisis and what to do about it: An alterative perspective." *Economic Development Quarterly* (2)4: 339-341.

ERS (US Department of Agriculture, Economic Research Service). 1991. *Education and Rural Economic Development*. Washington, D.C.: ERS Staff Report AGES 9153.

Fagan, Mark and Charles Longino. 1993. "Migrating retirees: A source for economic development." *Economic Development Quarterly*. (7)1: 98-106.

Fitzsimmons, John. 1993. "Comments". in Richard Barringer, (ed.). *Toward a Sustainable Maine*. Portland: Muskie Institute of Public Policy.

Flora, Cornelia, Jan Flora, Jacqueline Spears and Louis Swanson. 1992. *Rural Communities: Legacy and Change*. Boulder, Colorado: Westview Press.

Frederick, Martha. 1993. "Rural tourism and economic development." *Economic Development Quarterly*. (7)2: 215-224.

GAO (United States General Accounting Office). 1992. *Rural Development: Rural America Faces Many Challenges*. Washington, D.C.: GAO/RCED-93-35.

Glasmeyer, Amy and Michael Conroy. 1994. *Global Squeeze on Rural America: Opportunities, Threats and Challenges from NAFTA, GATT and Processes of Globalization*. State College, Pennsylvania: Institute for Policy Research and Evaluation, Pennsylvania State University.

Hillard, Michael and David Vail. 1993. "Human resources and sustainable development in Maine." (ed.). *Toward a Sustainable Maine*. Portland: Muskie Institute of Public Policy.

Honadle, Beth. 1993. "Rural development policy: Breaking the cargo cult mentality." *Economic Development Quarterly*. (7)3: 227-236.

Korshing, Peter (ed.). 1992. *Multicommunity Collaboration for Rural America*. Ames, Iowa: North Central Center for Rural Development.

MRDC (Maine Rural Development Council). 1995. *Economic and Social Trends and Conditions in Rural Maine*. Orono, Maine

McGranahan, David. 1991. "Introduction." in ERS, *Education and Rural Economic Development*. pp. 1- 12.

Meyer, Peter and Michael Burayidi. 1991. "Is value conflict inherent in rural economic development?" *Agriculture and Human Values*. 8(3): 10-18.

Mount Auburn Associates. 1995. *Forging New Relationships: An Economic Adjustment Strategy for the Bath-Brunswick- Topsham Region*. Final report prepared for the BBT Economic Development Council. Somerville, MA.

Vail, David. 1994. "Organizational innovation and sustainable rural development: Lessons from Sweden". in David Pearce and Sylvie Faucheux, (eds.). *Models of Sustainable Development*. 11: 1133-1146. Paris: University of Paris - Sorbonne.

Watkins, Dennis and Thomas Allen. 1994. *Firm Formation, Firm Failure and Competitiveness: An Overview of Maine's Entrepreneurial Economy*. Orono: University of Maine, MAFES Bulletin 840.

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