Working Paper No. 3

ENVIRONMENTAL PROTECTION and ECONOMIC DEVELOPMENT in NEW ENGLAND

A Presentation to the New Hampshire State Senate
Economic Development Summit

Stephen M. Meyer
Professor in Political Science

March 29, 1993

Massachusetts Institute of Technology
Project on Environmental Politics and Policy
Bldg/Room E53-402
Cambridge, Massachusetts 02139

Working Paper No. 3

(617) 253-8078

ENVIRONMENTAL PROTECTION and ECONOMIC DEVELOPMENT in NEW ENGLAND

A Presentation to the New Hampshire State Senate
Economic Development Summit

Stephen M. Meyer*
Massachusetts Institute of Technology
March 29, 1993

The task presented to me by the organizers of this conference was to consider how New Hampshire might harmonize policies for environmental protection and economic development. Given the recent barrage of news stories headlining disputes between environmentalists and industry interests -- the Spotted Owl versus the timber industry being only the most prominent-- one is left to wonder whether this is a fruitless undertaking. Is it possible for state governments to vigorously pursue environmental quality and economic prosperity at the same time?

In this presentation I will argue that, in fact, it is not only possible but that -- today's headlines notwithstanding -- we have been doing this quite successfully for over twenty years. The widely held view that strict environmental protection hinders economic growth and stifles business development is false. It is this fundamental misperception among both the business community and policy community, rather than our failure to devise "innovative policies," that hinders the development of more synergistic policies on the environment and economy.

Let me set the stage for my discussion of New England by summarizing the experience of all fifty states across the nation. I will then examine the New England region, and wind up with a look a partial comparison between New Hampshire and her sister state, Vermont.

THE NATIONAL RECORD

Since the beginning of the first environmental era more than two decades ago industry interests have argued that the imposition of rigorous environmental protection standards -- what I will call "environmentalism" as a short hand -- greatly increases business costs and undermines competitiveness. They claim that profits are reduced, R&D is stifled, plant modernization hobbled, and jobs lost. Anecdotes abound about firms driven to the edge of bankruptcy allegedly by burdensome environmental costs.

* The author is Professor in Political Science and Director of the MIT Project on Environmental Politics and Policy at MIT. This paper is a slightly revised version of a talk delivered to the New Hampshire State Senate Economic Summit, March 29, 1993, in Manchester New Hampshire.

Logically then, these effects should aggregate: states with more stringent environmental standards should suffer substantial and observable economic penalties.[*] To be sure, industry has effectively used this argument to combat what it saw as overly zealous state environmental policies. For example, in Massachusetts a packaging and recycling ballot proposition was soundly defeated last November due to fears of its *forecast* detrimental impact on the state's struggling economy.

However, an analysis of the U.S. economic history of the past twenty years reveals that such fears are, in general, misguided. States with stronger environmental standards and regulations have not suffered any measurable economic penalty. They do as well as states with much weaker environmental policies on a wide range of economic performance indicators. This holds for growth in gross state product, growth in personal income, growth in non-farm employment, growth in construction employment, growth in manufacturing employment, growth in productivity, as well as the rate of business failures, the rate of bank failures, the rate of mortgage foreclosures, etc.

This pattern also holds when you look at the rate of change in growth among the various indicators over time. This pattern holds both in times of high economic growth across the nation and in times of recession. This pattern holds when one controls for the gross size of state economies, state wealth (state income per capita), the diversity of the economic structure of the states, prior growth in the states, state economic dependency on extractive resources, and a host of other potentially intervening variables.[**]

The simple fact is that whatever the true underlying differential effects of environmentalism at the state level -- positive or negative -- they are not significant enough to reveal themselves in any systematic fashion.

NEW ENGLAND

Over the years there have been at least a half dozen independent assessments of the relative environmental status of the states. While any "environmental ranking" involves many measurement problems, there is one consistent point among the numerous ratings: New Hampshire ranks last in New England in environmental policies -- and by a considerable margin.

With this in mind let's examine New Hampshire's relative economic performance

---

[*] Over the past twenty years environmental policies among the fifty states have been characterized by considerable diversity in standards and goals, as well as degrees of implementation and enforcement. Federal environmental laws, while setting a base for state policies, have not equalized environmental policies among the states.

[**] These results are detailed in a series of reports published at the Massachusetts Institute of Technology. See the author's Environmentalism and Economic Prosperity and the Update.

Table I: Non-Farm Employment Growth in New England 1982-1992

	AVERAGE ANNUAL GROWTH			
	1982-1986	1987-1989	1990-1992	1982-1992
CT	2.9%	0.9%	-3.5%	0.6%
MA	3.1%	0.7%	-3.4%	0.5%
ME	3.5%	4.0%	-2.2%	2.1%
NH	5.6%	1.6%	-2.3%	2.1%
RI	3.2%	1.1%	-3.4%	0.8%
VT	3.7%	3.2%	-1.6%	2.1%
REGION:	3.7%	1.9%	-2.7%	1.4%

in the light of two widely held propositions linking environmentalism and economic prosperity.* The first is the straight forward argument -- already noted -- that higher levels of environmental standards and regulation make it more costly for industry and business to operate. These higher costs in turn reduce the level of net economic activity; jobs are lost. Given that New Hampshire is considered to be New England's least environmentally regulated state -- and by a large margin -- one would expect that New Hampshire's economy should have systematically out-performed those of its neighbors over the past decade, all else being roughly equal.

The second proposition tempers the first by arguing that in times of strong national economic activity it is possible that the presumed "environmental burden" might not be observable. Everyone profits in good economic times and so the benefits of New Hampshire's (environmentally) unregulated economy might not be all that evident. In times of economic recession, however, those businesses laboring under strong environmental controls are more likely to fail because of the extra costs they have to bear. Consequently New Hampshire's superior economic position might only be observable during periods of regional or national economic downturn. Hypothetically New Hampshire's rate of business failures might be no better nor no worse than average from 1982-1989, but should be significantly less than those of, say, Vermont and Maine during the 1990-1992 recession.

Table II: Manufacturing Employment Growth in New England 1982-1992

	AVERAGE ANNUAL GROWTH			
	1982-1986	1987-1989	1990-1992	1982-1992
CT	-1.5%	-3.2%	-5.5%	-3.1%
MA	-0.9%	-3.2%	-5.8%	-3.2%
ME	-1.2%	0.7%	-4.8%	-1.6%
NH	1.4%	-1.7%	-4.0%	-1.4%
RI	0.5%	-3.5%	-5.1%	-2.6%
VT	0.5%	-1.0%	-3.0%	-1.1%
REGION	-0.2%	-2.0%	-4.7%	-2.1%

What do we find when we look at New England's economic experience over the

*The time interval examined is 1982-1992. It directly follows the recession of 1980-1982. It includes a period of national economic growth, 1982-1989, and a period of recession 1990-1992. The data for 1992 are preliminary, however, and not in final form.

Table III: Business Failures per 10,000 Firms in New England 1982-1991

	AVERAGE ANNUAL RATE			
	1982-1986	1987-1989	1990-1991	1982-1991
CT	34	13	52	32
MA	53	42	117	62
ME	50	28	62	46
NH	41	48	124	59
RI	39	16	93	43
VT	31	28	50	34
REGION:	41	29	83	46

last decade? Contrary to expectations, New Hampshire's economic performance during the 1980s and into the 1990s was not superior, overall, to that of its more environmentally-regulated neighbors. In fact, in a number of interesting ways it experienced inferior economic performance.

Since the environment-economy debate tends to be framed in terms of "jobs", lets focus first on employment data. The accompanying charts compare the New England states for the period 1982-1992 in terms of annual change (growth) in five labor force categories: total non-farm employment; manufacturing employment; construction employment; finance, insurance, and real estate employment; and services employment. There is also a chart comparing the annual rate of business failures among the states.[**]

As is clear in all the charts New Hampshire's economic growth was not consistently above the regional average throughout the period. It's most impressive employment gains came during the first half of the period (1982-1986). New Hampshire's economic surge slowed considerably after 1986. For example, looking a Table 1 New Hampshire's annual growth in non-farm employment floats above the other New England states until 1986. where upon it dives into the middle. The story is similar in the component employment sectors.

Indeed a careful examination of the tables shows that New Hampshire's overall strong economic showing was largely a function of its bolt out of the 1980-1982 recession. The latter half of the decade paints a different picture: New Hampshire's economic performance from 1986-1989 was about average for the region, and consistently below that of Vermont and Maine (the two New England states most similar to New Hampshire in economics and geography, but noted for substantially stronger environmental policies).

The data on business failures further tarnishes the image of New Hampshire as an economic dynamo. Even prior to the recession New Hampshire had the second highest rate of business failures: about 60 failures per 10,000 establishments. This was only slightly less that the failure rate in Massachusetts but 50% larger than the

[**]To ease reading of the charts only the data for New Hampshire, Vermont, and Maine are connected by lines. The other states are shown only as points above the appropriate year.

average for the other New England states.

In sum, the first proposition is clearly false: among the New England states in times of a strong national economy there does not appear to be an observable benefit in economic performance arising from weaker environmental policies.

Table V: Construction Employment Growth in New England 1982-1992

AVERAGE ANNUAL GROWTH

	1982-1986	1987-1989	1990-1992	1982-1992
CT	9.6%	-1.7%	-13.0%	-0.5%
MA	12.0%	-4.0%	-15.6%	-0.8%
ME	12.7%	1.9%	-14.0%	2.4%
NH	11.5%	-9.6%	-14.6%	-3.2%
RI	12.4%	1.8%	-18.1%	1.3%
VT	11.5%	4.2%	-11.7%	1.3%
REGION:	11.6%	-1.2%	-14.5%	0.1%

The Recession

Turning to the recession two interesting things stand out. First, New Hampshire's economic slide (as indicated by negative employment changes) began about twelve to eighteen months earlier than those of Vermont or Maine. Its drop in construction employment even preceded Massachusetts. If strong environmental policies were truly a drag on the economy precisely the opposite pattern would be expected.

Table IV: Finance, Insurance, Real Estate Employment Growth in New England 1982-1992

AVERAGE ANNUAL GROWTH

	1982-1986	1987-1989	1990-1992	1982-1992
CT	5.5%	0.4%	-3.0%	2.3%
MA	4.7%	-0.1%	-4.2%	1.5%
ME	7.0%	1.0%	-1.6%	3.3%
NH	7.7%	1.7%	-3.4%	3.4%
RI	4.2%	2.3%	-3.9%	1.8%
VT	6.7%	3.3%	-3.6%	3.4%
REGION	6.0%	1.4%	-3.3%	2.6%

Second, New Hampshire's rate of job loss during the recession does not reveal any "benefit" from having the region's weakest environmental policies. In fact New Hampshire's job loss rate across the various sectors is consistently worse than the regional average. More to the point it is always worse than that of Vermont and Maine, despite the latter's stronger environmental standards.

New Hampshire also experienced the most rapid growth in, and highest rate of, business failures during the recession. It moved from slightly above the average failure rate during 1982-1989 to contesting "first place" with Massachusetts during the recession. By 1991 business failures in New Hampshire topped 176 per 10,000 establishments, actually surpassing Massachusetts' 128 per 10,000.

Correspondingly, as the accompanying chart shows New Hampshire's bank failure rate was more than three times that of Vermont and Maine, the two states that tended to keep pace with New Hampshire's economic growth during the prior period. Overall New Hampshire's poor showing in business and bank failures, coupled with its mediocre ability to retain jobs during the recession, is clearly inconsistent with the notion that less constraining environmental policies better enable businesses to survive hard economic times.

Economic Stability

Merging the results of the two periods New Hampshire's economic performance between 1982 and 1992 is about average for the region. Moving away from raw statistics of growth, an examination of the variability (or conversely, the stability) of employment in the region finds that New Hampshire experiences the widest fluctuations of any state across all employment categories. These oscillations are clearly seen in the charts. I would argue that such "roller-coaster" employment cycles are not desirable from either a public policy or economic standpoint.

NEW HAMPSHIRE, VERMONT, and LAND USE PLANNING

Lastly, I'd like to compare New Hampshire and Vermont directly because they are widely considered to be "sister states". As close as these sisters may be, one environmental policy issue widely perceived to distinguish them is growth management and land use planning. In particular, the focus of comparison is Vermont's Act 250. Indeed in Vermont, at this very moment, development interests are pushing to amend Act 250, arguing that it has greatly hindered the recovery of the economy in general and the construction industry in particular. New Hampshire, it seems, is the preferred model , with its relatively lax land use regulations.

However a comparison of growth in construction employment, finance, insurance, and real estate employment, and similar indicators of economic activity related to land use show that in every case during the period of national economic growth (1982 to 1989) Vermont's economic performance was either equal to or surpassed that of New Hampshire.[*]

Perhaps more importantly, during the economic decline of 1990-1991, Vermont's losses in terms of jobs and businesses -- and in particular, development-related jobs -- were significantly less than those of New Hampshire.[**] For example, New Hampshire averaged a 14.6% annual drop in construction employment between 1990 and 1992. By comparison Vermont averaged construction employment losses of roughly 11.7%.

---

[*]Similarly, Maine tracks equal to or surpasses New Hampshire's performance. Maine's growth management and land use planning regulations are somewhat less restrictive than Vermont's Act 250.

[**]Business failure data are not yet available for 1992.

As a consequence New Hampshire entered 1992 with roughly 28% fewer workers employed in construction than it had when it emerged from the recession of 1980-1982. Vermont, in contrast, still managed to come out *ahead* of 1982 by 12% (and Maine by 21%)

New Hampshire's average business failure rate during the recession was 124 failures per 10,000 establishments which was about two and one-half times that of Vermont (50 failures per 10,000 establishments). Interestingly, the fraction of business failures accounted for by construction and finance, insurance, and real estate -- all businesses directly affected by growth management and land use planning -- was nearly identical for the two states: almost 38%. If Vermont's Act 250 was truly a burden on development-related businesses one would expect them to comprise a relatively larger share of Vermont's business failures.

In short, the widely held perception that New Hampshire experienced a development boom that yielded great economic benefits beyond those experienced by its neighbors is false. In fact, New Hampshire's development-related business performance was worse than its neighbors in many key respects. The experience of Vermont (and Maine) suggests that New Hampshire's relatively lax approach to growth management and land use had little to do with whatever development growth took place.

CONCLUSION

It has been argued that New Hampshire's economic dynamics during the 1980s were largely a function of its close coupling to the Massachusetts economy. This may well be the case. But it only further reinforces my basic point that the negative economic effects of environmentalism -- to the extent there are any -- are lost in the noise of much larger forces that determine the fate of state economies.

What are the lessons for New Hampshire? The first is that New Hampshire can push more vigorously for environmental protection without worrying about harming its economic well-being. Strong environmental policies and standards as implemented over the past twenty years have not proved to hinder significantly or systematically economic growth and prosperity among those states that have chosen this path. In New England similar states with stronger environmental policies, such as Vermont and Maine, demonstrated comparable economic performance but with greater economic and employment stability.

Does this mean that particular firms or industries might not see short-term profits decline as a result of some specific environmental regulations? No. Does this mean that poorly crafted and/or conflicting regulations do not hurt the business environment? No. It means that among all the factors that combine to affect the rate, the pace, the scale, the scope and the health of the state's economy, environmental policies, standards and regulations are so marginal that their effects are lost in the noise of ordinary economic dynamics.*

Does this mean that business will not complain about new environmental standards, or forecast dire economic consequences should new regulations be proposed? Of course not. Business is concerned with keeping its costs, and especially externally imposed costs, low. And in this respect the time has come for business to begin to regard the costs of environmental protection as ordinary business costs -- something it seems still reluctant to do. Far too frequently state government efforts to protect the environment are blindly labelled "anti-business". This must change for several reasons. (1) The public has come to view the costs of environmental protection as ordinary business costs and will eventually force business to accept them through the political process. (2) The rapidly shrinking sums of public money available for environmental protection will push state and federal governments to force business to bear the burden. (3) The costs of immediate environmental protection are orders of magnitude less than the costs of deferred environmental protection. Thus the longer the delay the greater the ultimate costs to business. Business needs to get out ahead of government in harmonizing environmental protection and economic performance.

A second and related lesson is that New Hampshire can move now to consider far stronger growth management and land use policies to protect its natural heritage without fear of harming its economy. Today's depressed real estate prices combined with the beginnings of economic recovery will bring renewed development pressures to New Hampshire's remaining open land. The evidence suggests that Vermont's Act 250 has not hurt its economy in any identifiable way. There is certainly no reason to believe that Vermont's economy -- or its development sector -- would have performed any better had Act 250 been eliminated or substantially weakened.

In fact there is at least some reason to speculate that the more extensive planning required by Act 250 actually may have contributed to lessening the overall impact of the recession on Vermont's construction, real estate, and banking industry. The planning and certification hurdles imposed on developers by Act 250 may have had the effect of weeding out poorly conceived projects and opportunistic developers. As in the case of the consultation process under the Federal Endangered Species Act, the added time and costs of complying with Act 250 may deter many marginal projects from even being proposed while ensuring that those firms prepared to move forward are well-capitalized and goal oriented. Development may have been "paced" at more sustainable levels.

---

*Studies run by the U.S. Bureau of Labor Statistics for the last five years show that on average about one-tenth of one-percent (0.001) of job layoffs are attributed to "environment-related" causes. By way of comparison, "natural disasters" account for four to nine times this amount.

This negligible effect is not surprising because even in the most environmentally-zealous states state and local governments listen carefully to business concerns and modify legislation and regulations to lessen the presumed economic burden.

It is even likely that many segments of New Hampshire's business community will come to view such planning in a positive light. This is because, increasingly, environmental issues act as surrogates for clashes between business interests. For example, in Vermont and New Hampshire there is growing competition between ski resort operators who want to use water from the local water shed for snow making and the tourism-related and fisheries industries who want greater watershed protection. Similarly, there are conflicts between development and real estate interests who find their best profits in development projects on cheap rural lands (including wetlands) and the urban business community who would prefer to see revitalization of down-town areas.

In conclusion, as New Hampshire begins to move out from under the recession there is no better time for state government, business, and the public to reconsider the basic -- and to a large extent erroneous -- assumptions that have guided thinking on environmental and economic policy in years past. Public policy can be both strongly pro-environment and strongly pro-business.