ACT 250

A POSITIVE ECONOMIC FORCE
FOR VERMONT
Acknowledgements

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The Vermont Natural Resources Council is a nonprofit environmental organization founded in 1963 to promote the wise use of Vermont’s natural resources. VNRC does research, legislative lobbying, advocacy, and education work on issues including land use, forestry, agriculture, water, energy, wastes, and growth management.

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FOREWARD

April 1995 marks the 25th anniversary of Vermont’s landmark law, Act 250. Created by a group of thoughtful Vermonters led by Governor Deane Davis, this legislation has been the basis of environmental quality, protection, and economic progress throughout the past quarter century in Vermont and influential throughout America.

The creators of Act 250 did their work well. The ten criteria and broad public participation included in the legislation have been the backbone of the law and have withstood attack over the years.

As we celebrate these 25 years of conservation of Vermont values, let us continue to be vigilant in protecting Act 250 to assure that it will continue its effectiveness in the future years.

Former State Sen. George Little, Jr.
Member, VNRC Board of Directors
April 4, 1995
EXECUTIVE SUMMARY

ECONOMIC BENEFIT
Act 250 provides significant economic benefit to Vermont by protecting the state's economic, resource-based sectors.

The Findings: By protecting Vermont's natural resources, Act 250 also protects the significant revenues generated by Tourism, Residential Recreation, "Green Trade," Agriculture and Forestry. Together, these sectors contribute over a billion and a half dollars to the Gross State Product.

STRONG BANKS
By discouraging poorly capitalized developments, Act 250 protects Vermont's financial sector from the excesses of land speculation.

The Findings: In a recently conducted survey of Vermont banks, over 93% of the respondents indicated that Act 250 helps moderate land speculation and excessive growth in Vermont. Eighty-one percent believed that Act 250 has a positive effect on Vermont's banking industry. This effect is reflected by the fact that in all of New England only Vermont banks posted a profit in 1990. In addition, Vermont banks had the lowest percentage of nonperforming loans through the first quarter of 1991. Because of the relative health of the state's banks, gross loans increased through 1989 and 1990. In contrast, the gross loans of New Hampshire banks fell 1.32% in 1989 and 10.33% in 1990.

ENERGY CONSERVATION
Through the requirement of energy conservation, Act 250 provides significant savings to Vermont homeowners, tenants and businesses.

The Findings: According to Vermont's energy experts, Act 250 has saved ratepayers literally hundreds of millions of dollars over the past 15 years. Water conservation will also have resulted in savings in water supply investment.

BETTER INFRASTRUCTURE
By protecting Vermont's infrastructure, Act 250 ensures that Vermont can attract new businesses and support existing ones.

The Findings: According to a number of studies, public infrastructure is critical to economic growth and stability. By helping to protect this resource, Act 250 ensures that Vermont's roads, schools, water supply systems and sewage treatment facilities can continue to provide economic value to the state.

STEADY GROWTH
Although Act 250 increases the costs of doing business, there is little indication that the Act has significantly slowed growth.
The Findings: From 1970 to 1991, the index of nonresidential construction in Vermont surpassed the New England average 50% of the time, while residential construction did so 59% of the time. During the last decade, Vermont's construction industry grew proportionately more than any other New England state.

INCOME AND EMPLOYMENT GROWTH

Macroeconomic data suggest that Vermont's economy has not suffered under an adverse regulatory scheme. Indeed, over the life of Act 250, Vermont's economy has shown impressive gains in relation to other states.

The Findings: Over the life of the Act, per capita income in Vermont has increased at a rate of 1.9% per year. As a result, the post Act 250 period saw Vermont significantly improving its economic position relative to the rest of the country. Similarly, employment data indicate that Vermont's share of New England's nonagricultural employment increased over the life of the Act. In 1969, Vermont's share of nonagricultural employment was 3.25%. By 1990, this share increased to 4.04%. Part of this gain is attributable to Vermont's increased share of "high value-added" manufacturing jobs.

A GOOD PLACE TO DO BUSINESS

Business climate ratings suggest that Vermont's regulatory environment is benign with respect to the costs of doing business. Indeed, these services consistently rank Vermont as a leader with respect to the costs and benefits of doing business.

The Findings: One of the three major business climate rating services ranked Vermont 2nd in 1987, 4th in 1988, 5th in 1989 and 9th in 1990. Another service ranked Vermont 14th, 12th, 7th and 2nd through the same period.

ABSTRACT

Although it is generally agreed that Act 250 promotes wise land use, many critics suggest that it does so at the expense of Vermont's economy. Despite the intuitive appeal of this argument, there is little evidence to support it. Indeed, the evidence is quite to the contrary and suggests that Act 250 is a valuable economic asset. In support of this proposition, this paper sets out the relevant evidence and explores the fallacy of the "negative impact theory" and the nature and extent of the positive relationship between Act 250 and Vermont's economy.
INTRODUCTION

Act 250, Vermont's principal land use law, was enacted in 1970 to protect the state from the "costs" associated with substandard and environmentally unsound development. Today, few would argue that the Act has generally fulfilled its purpose. The quality of Vermont's construction is unsurpassed and the state is consistently ranked high in environmental ratings. Despite its success, however, Act 250 has not avoided criticism.

Perhaps the most common criticism of the Act is that its success has come at the expense of economic prosperity. The underlying premise of this charge is that Act 250 slows growth to such an extent that the economy is depressed. Implicit in this charge is the assumption that Act 250 either fails to provide benefit or fails to do so meaningfully.

Despite the popular appeal of this "negative impact theory," a growing number of bankers, economists and laypersons are beginning to question its legitimacy. Indeed, some even postulate that Act 250 may help—not depress—the economy. This new thinking is the result of mounting evidence suggesting that the economic benefits flowing from Act 250 are severely underestimated. Similarly, while it is accepted that Act 250 imposes costs, questions are now arising whether they are sufficient to significantly deter development.

To date, little work has been conducted in support of these propositions. The purpose of this paper is to initiate this work and to assemble information which demonstrates that Act 250 is a positive economic force.

Before proceeding, it should be noted that no attempt is made here to assess the value of Act 250 or to suggest that economic impact studies are an appropriate method of appraising environmental regulation. Environmental regulation is valuable not because it increases profits, but because it improves the human and nonhuman condition. It is unwise, indeed, impossible to calculate the dollar value of such an achievement. This paper merely attempts to dispel the myth that Act 250 is an economic liability.

The approach taken here will involve three steps. First, the negative impact of Act 250 will be discussed and critiqued. This section will investigate construction data in order to assess the impact of Act 250 on developers. Next, the paper will identify and assess the nature and extent of Act 250's positive impact. Finally, the proposition that Act 250 is a positive economic force will be tested. This section will consider the macroeconomic impact of the Act using economic indicators such as income and employment.
THE NEGATIVE ECONOMIC IMPACT OF ACT 250

Act 250 causes some economic concern by increasing the costs of construction such that developers may be discouraged from building in the state. This may hurt the economy because for every development not built, the economy is deprived of jobs, income and capital.*

Act 250 increases the costs of development in two ways. First, and most importantly, the Act requires developers to go through an extensive permit review process. As a result, developers may lose opportunities to make money. This is called opportunity cost. The process also creates costs related to the preparation and administration of permits. Second, the Act requires developers to spend money to meet substantive environmental and land use standards.

These costs tend to discourage a certain amount of development. However, after reviewing the construction data for the twenty-two year period since the Act's passage, it seems clear that this impact is marginal.

A. Act 250's Impact on Construction

According to data published by New England Economic Indicators, construction in Vermont has been fairly strong since Act 250's enactment. In the 1970's, the index of Vermont's residential construction contracts surpassed the New England average in nine of eleven years. Nonresidential construction was not as strong and contracted for a period of about five years following Act 250's passage.2 However, "[n]on-residential construction was ... slow throughout New England after 1970," so it is difficult to assess what role Act 250 played in the contraction.3 Despite its initial weakness, the index of nonresidential construction began ascending in 1975. From 1976 to 1980, the index of nonresidential construction in Vermont surpassed the New England average in three of the five years. From 1970 to 1980, the index of nonresidential construction surpassed the New England average five times.4

In the 1980's, commercial construction continued to be strong while residential construction decelerated.5 From 1981 to 1991, the index of Vermont's commercial construction contracts surpassed the New England average in six of the eleven years, while the index of residential construction did so in four.

* A secondary problem arises if a developer passes on the costs to consumers. This is especially problematic in the case of potential home buyers. Despite its potential impact, this issue will not be discussed, as it relates more to "quality of life" than to economic health. Furthermore, while Vermont homes are more costly than the average American home, there is evidence suggesting that the impact of Act 250 on home buyers is minimal.

According to the 1990 U.S. Census, construction of housing units in Vermont increased at a faster pace than the national average in the last decade. As a consequence, more Vermonters own their own homes today than in 1980. In fact, the percentage of Vermont homes that are owner occupied is greater than the national average. Moreover, Vermont's housing became less crowded over the last decade, while the nation's housing became more so.

It is also important to note that Act 250 has an upside regarding property values. By increasing the attractiveness of the state, Act 250 increases the wealth of property owners. This benefit flows to prospective purchasers and owners alike.
With the possible exception of the contraction of nonresidential construction from 1971 to 1975, the data suggest little relationship between Act 250 and Vermont construction. From 1970 to 1991, the index of nonresidential construction in Vermont surpassed the New England average 50% of the time, while residential construction did so 59% of the time. Vermont's construction was especially strong over the past eleven years. Indeed, during the last decade, Vermont's construction industry grew proportionately more than any other New England state.6

The value of construction contracts in absolute dollars also shows little indication that Act 250 retarded construction. In 1970, the value of all construction in Vermont equaled 145 million dollars. By 1989, this sum grew to 628 million—a 330 percent increase.7

On the basis of this evidence, it seems clear that construction in Vermont is not suffering under the Act. From 1970 on, construction grew at a fairly strong pace as compared to New England, indicating no far-reaching effects of Act 250. This is not to suggest that Act 250 had no impact on construction. This is unquestioned. What is suggested is that this impact is marginal.

B. Why Act 250 Fails to Significantly Slow Down Growth

While it is impossible to ascertain with certainty why Act 250 fails to significantly slow down growth, the following four reasons are offered. First, because Act 250 is fairly limited in scope, much of the Act's negative impact is not "felt." Second, it is likely that the opportunity costs associated with time delays are not as imposing as commonly thought. Third, the decision to build in Vermont may not be significantly influenced by the kinds of costs imposed by Act 250. Finally, the costs of Act 250 may be partially offset by its ability to attract business.

The Scope of Act 250

One reason that Act 250 may not significantly retard growth is that it impacts only a portion of Vermont's development. What many people forget is that Act 250's scope is fairly limited. Indeed, the Act may apply to only about forty percent of all the development undertaken in the state.8 This leaves approximately sixty percent of Vermont's development free from the costs imposed by the Act.

Although no empirical analysis has been conducted, an argument might be made that Act 250 itself is responsible for the high percentage of developments outside its jurisdictional scope. This argument is substantiated by the fact that over 90% of Vermont businesses employ under 20 people—a higher than average percentage.9 Although the correlation between size of workforce and size of project is indirect and has not been studied, Act 250 jurisdiction does not apply to commercial/industrial projects involving less than 10 acres in towns with zoning and subdivision regulations in place, or projects on less than one acre in towns lacking those regulations. If the costs of Act 250 do encourage small development, the Act is actually promoting economic stability. "Unlike big businesses, ... small businesses have entrepreneurial agility, speed and flexibility"10 and are more adaptable to the ever-changing economic environment.
Time Delays of the Permitting Process

The speed of a permitting process is critical to developers because the longer a permit remains in the system the less opportunity the developer has to collect on his or her investment. This problem can be especially acute in Vermont where weather conditions for building can go from good to bad very quickly. Furthermore, the longer the process takes the more the developer will have to spend on attorneys' fees and other associated costs.

To date, the Act 250 permitting process has acquired a reputation as being particularly slow and laborious. This reputation, however, is undeserved.

The best measure of the speed of Act 250 is found in a state-sponsored study which reviewed all applications for 1987 and 1988 during the peak of Vermont’s development boom. According to the report, nearly 50% of the applications filed in the study period were processed within two months. The percentage of applications processed within four months increased to nearly 70% and rose to 75% for six months. *

The report noted that the processing times would be much faster if pending applications were not considered in the analysis. Pending applications are neither granted, denied or withdrawn and remain in this state for extended periods of time for reasons "over which a district commission has little or no control." 12 Absent the pending applications, the percentage of applications processed within two months rises to 61%, 83% for four months and 92% for six months. **

On the basis of these figures, it seems fair to conclude that Act 250’s permitting process is not the slow, time-consuming horror it is commonly made out to be. Indeed, the processing times appear to reflect a process which is generally swift. In fact, board statistics indicate that permit processing times have improved in recent years due partially to the economic slowdown, the introduction of "performance standards," designed to expedite the submission of needed information, and a more experienced staff. In calendar year 1991, 57% of all applications were processed in 60 days and 78% were processed within 120 days.13

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* It is important to note that commercial developments are processed considerably faster than residential developments. According to the data for 1988, only 50% of the applications were processed within four months as compared to 72% for "commercial developments" and "commercial subdivisions." This differential treatment is important because commercial development is generally considered more valuable to economic growth than residential development.

** The processing times would be faster still if not for delays created outside of the process. According to the report, District Commissions were awaiting the issuance of permits from other agencies in 47% of the cases sampled by the Board (the sample contained 45 cases). The report also noted other instances where the process was delayed for reasons beyond the control of the Commissions. For example, some delays resulted from legal action challenging the issuance of municipal permits.

Delays were also found to be attributable to applicant delinquency. In fact, in 71% of the cases sampled by the board, lack of response by the applicant was in part responsible for extended permitting times.
The Impact of Act 250 on Site Location Decisions

Act 250 costs may not significantly influence decisions concerning site location. According to a recent national study, even stringent state environmental regulation is "unlikely to have a large effect on the location decisions of the average factory."14

Another study indicates that corporate location decisions are primarily related to such factors as market size, market potential and labor pool.15 Although cost base is certainly a factor, it is only one of many.

The Value of Act 250 in Attracting Businesses

Act 250 seeks to maintain environmental quality in Vermont which in turn attracts quality development. According to site location studies, one of the most common factors in deciding where to locate is "quality of life."16 This phenomenon is important because Vermont is widely known for its pristine environment and the quality of life it supports. Indeed, these qualities are often extolled by local business groups hoping to attract companies to their areas.

Given the importance of environmental quality, it seems fair to credit Act 250 with helping to lure businesses to Vermont. This view is shared by John T. Ewing, President of the Bank of Vermont, who indicates that Act 250 creates the kind of environment which can attract business.17

Another way that Act 250 attracts businesses is by providing potential developers with a system to protect their investments. For instance, a retailer who develops in Vermont knows that the roads leading to and from his or her store will be protected by Act 250 from the congestion that subsequently built stores would ordinarily cause.

In light of Act 250's ability to attract business, it is not surprising to learn that some members of the financial community tout Act 250 when trying to lure investors to the state. Such is the case with Elbert Moulton, a banker and former Secretary of Development and Community Affairs, who explains the advantages of Act 250 to clients thinking of developing here.18

C. Conclusion

In summary, the negative impact of Act 250 on development seems marginal. This counter-intuitive finding is likely due to the four factors discussed above. In the following section, the economic benefits of Act 250 are identified, described and quantified (to the extent this is possible).
THE POSITIVE ECONOMIC IMPACT OF ACT 250

In contrast to the negative impact, the positive impact of Act 250 is indisputably significant. This positive impact flows from three separate functions of the Act:

(1) the protection of Vermont's natural and man-made resources;
(2) the promotion of energy conservation; and
(3) the protection of the financial sector from excessive land speculation.

A. Protection of Natural and Man-made Resources

Prior to 1970, development in Vermont was out of control. Poorly planned and designed developments were the rule, not the exception. As a result, Vermont's man-made resources such as roads, schools, sewage treatment facilities, water supplies and police and fire protection were often overburdened.

The most critically impacted resource, however, was Vermont's environment. Water pollution, air pollution, loss of open space and destruction of natural habitat were all on the increase and began to undermine the integrity of Vermont's resources and the quality of life they supported.

According to basic economic theory, these impacts occurred because resource degradation was cost efficient. In other words, it was cheaper for developers to allow resource degradation to occur than it was to design their developments to prevent it.* In the absence of an economic incentive to prevent degradation, developers simply allowed it to continue.

Act 250 is designed to correct this market failure by forcing developers to bear the costs of preventing the degradation they cause. This makes perfect sense from an economic perspective because resources have productive value. If resources are degraded, this productive value is lost, and society must assume the costs of remediating the damage to restore value.

Consequently, by preventing resource degradation, Act 250 not only preserves the productive value of resources, it also saves society from bearing the costs of remediation. This is sensible because value is preserved and because preventing resource damage is less expensive than remediating it.

Unfortunately, while it is fairly easy to explain how resource protection provides benefit, it is quite another thing to define the extent of the benefits flowing from a law like Act 250. This is so because it is difficult to quantify the value of resources. How valuable is a clean lake or an uncrowded road? Furthermore, even if it were possible to assess resource value, it would be difficult to assess how much of this value Act 250 has protected. Act 250 provides benefit by preventing the loss of resources. Therefore, to accurately assess the extent of its benefit, it is necessary to measure what has not occurred. In most instances, this is simply not possible. Generally, all that can be done is to identify how the Act provides benefit.

* It should be noted that this is not an indictment of the development industry, but rather a statement of economic fact.
In the next section, two benefits of resource protection are discussed:
(1) protection of productive value; and
(2) prevention of the costs of remediation.

For clarity, natural and man-made resources are treated separately.

1. Natural Resource Protection

a. The Benefits of Protecting Productive Value

When Act 250 protects Vermont's natural resources—such as open space, air, water, soil and earth resources, agricultural and woodland soils, wetlands and natural habitat—it also protects their productive value. This provides significant economic benefit to the state because Vermont is unusually dependent upon its resources for revenue generation. Indeed, perhaps 20% of the Gross State Product ("GSP") is attributable to Vermont's three economic, resource-based sectors: tourism/recreation, "green trade" and agriculture/forestry.19

To appreciate the extent of this benefit, the productive value of these sectors and Act 250's role in their protection are considered next.

(1). Protection of the Tourism/Recreation Sector

Vermont's most important resource-based sector is tourism/recreation. Tourism alone is responsible for approximately 15% to 16% of Vermont's GSP, making it the third or fourth greatest source of revenue for the state.20 This level of reliance is unusually high and is surpassed by only three other states.21 To grasp the importance of this sector, consider that in 1990 an estimated 8 million people visited the state and spent 1.3 billion dollars of "primary capital" (new money).22 This money supports over 30,000 jobs,23 or approximately 10% of Vermont's labor force.24

Residential recreation is also important to Vermont's economy. Although no numbers exist, the revenues generated by this sector are considerable. For example, in 1985 Vermonters spent over 150 million dollars for the goods, services and licenses related to hunting, fishing and trapping.25 Other resource dependent activities such as boating, bird watching, wildlife photography and so forth are not reflected by this figure.

Needless to say, the strength of Vermont's tourism/recreation industry is directly related to the quality of the state's natural resources. As a consequence, when Act 250 protects open space, agricultural and woodland soils and the quality of Vermont's air, water, and fish and wildlife resources, it is also protecting the revenues generated by tourism and recreation.

Regrettably, it is not possible to assess the extent of this benefit. Presently, no records are kept as to how many acres of wetlands, agricultural lands and natural wildlife habitat are preserved through the Act 250 process. Similarly, it is impossible to estimate how much degradation the Act has prevented from occurring to Vermont's air and water resources. Nevertheless, it is clear that Act 250 has been successful in protecting these resources and the tourism/
recreation sector they support. For an indication of Act 250's success, one need look no further than the speculative development in New Hampshire, causing breakdowns in both the natural and man-made infrastructure in areas such as North Conway and Loon Mountain, which has contributed to weakening in property investment values.

(2). Protection of the Green Trade Sector

Act 250 also provides benefit by protecting "Green Trade." The green trade sector is that portion of Vermont's trade industry which relies upon Vermont's image as a clean, wholesome and environmentally progressive state. This image helps the state generate an estimated 500 million dollars each year from specialty food products alone.26

While green trade products are undoubtedly superb, it is the "Made-in-Vermont" label that catches the eye of consumers. As a marketing executive for Cabot was recently quoted as saying, "Vermont is prescriptive. It's good for you."27 Interestingly enough, Vermont's "clean and green" image is so strong that food producers from competing states have been known to use the word "Vermont" on their own labels.28

It is evident that Act 250 is an important factor in the creation and maintenance of this industry. People buy Vermont products because Vermont represents natural beauty and clean resources—qualities Act 250 protects. If Vermont's commitment to resource protection were not as great, it is unlikely that the green trade sector would be as important to the state's economy. How many states that fail to protect natural resources, for example, can sell products by identifying their source?

(3). Protection of the Agricultural and Forestry Sector

Act 250 also provides benefit by protecting agricultural and woodland soils which support Vermont's agriculture/forestry sector. Although agriculture and forestry have experienced a decline, they still contribute over 300 million dollars to the GSP.29 Equally important is the fact that this sector supports over 44,000 jobs,30 or approximately 14% of Vermont's labor force.31

It should be noted that the economic benefits flowing from the protection of agricultural lands go far beyond the protection of the revenues generated. Protection of these lands is also important to meet future food demand.

Presently, Vermont imports the vast majority of its food from the west.32 Given the increasing problems with western water supplies, prices may soon reach levels which would make it economically feasible for Vermont to produce the bulk of its own food. The economic advantages of increasing Vermont's food production are accentuated by the fact that food demand in the U.S. is ever increasing while the supply of farmland is steadily declining. By protecting agricultural lands now, Act 250 ensures that Vermont can protect its economic interest in increasing food production at a later date.

A similar argument can be made for the preservation of Vermont's woodlands. With hardwood forests declining around the world, the northeastern for-
est should soon become a major factor in the global hardwood market. By protecting woodland soils now, therefore, Act 250 ensures that Vermont's forest industry can exploit this growing market.

In summary, Act 250 provides significant economic benefit by protecting Vermont's natural resources. Each year, these resources contribute billions of needed dollars to the state economy. In the absence of laws like Act 250, this productive value will be lost and the state will suffer.

b. The Benefits of Preventing Remediation Costs

When resources are degraded, society must spend considerable amounts of money to restore their productive value. Accordingly, when Act 250 prevents natural resource degradation, it also prevents this expense from falling upon society. This is important because remedying resource degradation is more expensive than preventing it. To illustrate the nature and extent of this benefit, consider the case of State of Vermont v. Andrew Therrian.

In Therrian, the defendant applied for an Act 250 permit to subdivide a 100-acre parcel in the Town of Derby. Two months later a permit was issued for a 77-lot subdivision. The permit was issued with ten conditions, nearly all of which related to the design and/or procedure for sewage collection and water supply. These conditions were authorized by both Act 250 and Vermont Health Regulations.

Unfortunately, the subdivision's developer failed to abide by the conditions. As a consequence, a large number of lots were left with improperly functioning sewage systems. For example, lot 75 had exposed sewage lines, lot 51 had effluent surfacing on the front lawn, lot 53 had effluent surfacing near its well and lot 55 had an open pit serving as its sewage system.

Water systems were equally poor. This resulted in systems that were often inappropriately located. Indeed, all 18 of the subdivision's wells were located too close to contamination sources. As a result, lots 1, 4, 19, 49, 51, 55, 68 and 73 all tested positive for fecal waste.

Needless to say, the cost of remediating the polluted water supplies is in the tens of thousands of dollars. Although the defendant is expected to pay for much of the damage, many of the residents have already suffered financial loss. Had the Act 250 permit been complied with, however, neither the developer nor the landowners would have suffered these losses.

Fortunately, examples like Therrian are relatively rare. The reason for this, of course, is that Act 250 prevents the kind of development that imposes economic costs upon society. While the amount of money that Act 250 has saved in this way cannot be calculated, it is undoubtedly significant given the failure of our market system to induce developers to prevent these costs.
2. Man-made Resource Protection

Vermont's man-made resources consist of public infrastructure including roads, schools, sewage treatment facilities and water supply systems. They also include public services such as fire and police protection. Act 250 is designed to protect these resources just as it protects natural resources. Accordingly, the Act provides benefit by protecting their productive value and by saving society from bearing the costs of their remediation.

Act 250 is certain to have delayed or defrayed the public cost of improving the quality of Vermont's transportation infrastructure.

a. Benefits of Protecting Productive Value

Like natural resources, man-made resources have considerable productive value and are critical to the success of Vermont's economy. In order for Vermont to attract foreign, and even local investment, it is necessary that infrastructure and public services are able to support the needs of prospective developments. Indeed, it is commonly suggested by economists that the wisest investment for economic growth is investment in infrastructure. This is so because quality infrastructure not only attracts new development but also increases the productivity of existing private capital.

To appreciate the economic significance of protecting these resources, it is helpful to consider the case of "road resources." Roads have enormous productive value and are often called the economic arteries of the economy. This analogy is quite apt, for without quality roads, businesses would be far less inclined to locate in Vermont.

Furthermore, when roads become congested (a form of degradation), time delay costs increase and productivity declines. Indeed, a study on traffic congestion in Houston assessed the loss of productivity associated with time delay at $30 per hour for commercial vehicles and at the minimum wage for individuals. The study estimated that in 1981 alone, traffic congestion in Houston cost motorists an extra 1.9 billion dollars. Another example of productive value is illustrated in the relationship between vehicle miles traveled and economic growth.

By protecting roads from overuse, Act 250 reduces time delay and ensures that their productive value is preserved. Although it is impossible to gauge the actual extent of Act 250's impact, it is certain to have delayed or defrayed the public cost of maintaining or improving the quality of Vermont's transportation infrastructure.

In addition, there are several examples of Act 250 decisions which have required municipalities within a region to cooperate on studying and developing solutions to traffic problems. There is a tendency on the part of municipalities to avoid addressing problems with transportation infrastructure while continuing to approve new traffic-producing development. In cases such as the Rutland Area Vocational High School on the boundary of Rutland Town and Rutland City, the District Commission required the communities to address the existing traffic snarl as they proceed with construction of the school.
One of the first examples of a District Environmental Commission requiring the towns, regional planning commission and applicant to address a traffic problem head-on was the Stowe Club decision in the mid-1980's which required development impact fees to build research funds.

This caused the town of Stowe to hire a professional town planner to help resolve its growing problem.

Act 250 is equally successful in protecting the rest of Vermont's man-made resources—all of which provide economic benefit to the state. For example, water supplies are important to any company requiring large amounts of water. Quality public services and uncrowded schools also provide value by improving quality of life—an important aspect of site location decisions.

In summary, by protecting Vermont's man-made resources, Act 250 protects their value and ensures that they are capable of attracting and supporting new businesses.

b. Benefits of Preventing Remediation Costs

When man-made resources are degraded, substantial costs are created which must be borne by society. By preventing and/or minimizing degradation, Act 250 ensures that these costs are avoided. Again, this is important because avoiding resource degradation is less costly thanremedying it.

To appreciate the extent of this benefit, it is instructive to consider how Act 250 avoids the costs associated with road congestion. Road congestion is caused by new development and can result in the creation of significant costs. For example, a recent traffic study estimated that from 1987 to 2007 the Taft Corners area of Williston could expect new development to generate 18,880 new p.m. peak vehicle trips. The report estimated that 20 million dollars would be needed to improve road infrastructure to support the expected increase in traffic. Road congestion also creates costs by increasing the incidence of traffic accidents. According to the National Safety Council, the average cost of motor-vehicle related deaths is $290,000. The average cost of disabling injuries is $13,100.

Act 250 helps prevent these costs by encouraging permit applicants to design their developments to avoid or reduce congestion. For example, in 1990, the Environmental Board denied an application to build a supermarket at the Berlin Mall on the grounds that the project would increase traffic problems. Traffic conditions were an issue because the access to the proposed development was located in a high-accident area near the Central Vermont Hospital. After being denied a permit, the developer redesigned the project to redirect incoming and outgoing traffic away from the traffic-sensitive area.

It should be noted that Act 250 provides similar savings when it prevents overcrowded schools and the overuse of public services, water supply systems and sewage treatment facilities. For example, as funding sources for new or improved water or sewage treatment plants have become increasingly scarce, the benefits of more than 20 years of water conservation, required as a standard.
condition in Act 250 permits, becomes apparent. While it would be pure speculation to estimate the savings Act 250 provides in this way, they are likely to be substantial.

B. Benefits Flowing from the Promotion of Energy Conservation

Although Act 250 is generally thought to relate only to resource protection, it also requires developments to "reflect the principles of energy conservation and incorporate the best available technology for efficient use or recovery of energy." This requirement is implemented by setting insulation standards, promoting the use of efficient lighting and generally disallowing electric heating. While the promotion of energy conservation may seem fairly trivial, it has significant economic implications.

Indeed, according to Richard Cowart, Chair of Vermont Public Service Board, Act 250 will save Vermont ratepayers approximately 500 million dollars over the life of the buildings that the Act has affected. Similarly, the Department of Public Service indicates that Act 250 has saved Vermont "several hundred million dollars over the last 15 years."

These savings are realized for the simple reason that investment in energy conservation is cost efficient. For example, in Texas, one housing contractor spends an extra $262 on each of her affordable housing units to increase efficiency. As a result, tenants are saving $35 a month on their heating bills. In Chicago, developers of upscale homes are investing an extra $2000 per house to increase efficiency, resulting in savings of over $72 per month.

Act 250 provides similar benefits to Vermont's tenants, homeowners and businesses. Indeed, because of the Act's jurisdictional scope, the variety of mechanisms used to improve efficiency and the climate of Vermont, even greater savings can be expected.

It is important to note, however, that energy conservation provides benefit far beyond the savings realized by ratepayers. For example, by promoting energy efficiency, Act 250 reduces the overhead of businesses, thereby improving the competitiveness of Vermont firms. Another expression of this benefit which shows the energy efficiency of Vermont's economy is indicated by the fact that Vermont's economy significantly outperforms the U.S. as a whole with respect to the amount of goods it can produce per million BTU's.

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*According to a report issued by the National Association of Homebuilders, the implementation of this standard has been successful. The report found that of all the states in the continental United States, Vermont had the best insulated new homes.

** According to Richard Cowart, Chair of Vermont Public Service Board, Vermont now spends approximately 1.2 billion dollars each year for energy. If Vermont's were as inefficient as the United State's economy, the state's energy bill would increase by approximately 800 million dollars each year.
Moreover, the data indicate that Vermont's rate of improvement in this area is increasing relative to the nation's. While it is impossible to know to what extent Act 250 is responsible for this impressive showing, it's undoubtedly significant.

Another indirect benefit flowing from energy conservation is related to Vermont's dependence upon out-of-state energy sources. By promoting energy conservation, Act 250 protects the state from foreign adjustment of electricity prices. Furthermore, it ensures that Vermonters have more disposable income to spend in the state.

Together, these benefits provide significant economic aid. Without Act 250, disposable incomes would be lower, overhead costs would be higher, Vermont's use of energy would be less efficient and more Vermont money would be spent to support out-of-state generating plants. While it is impossible to calculate the amount of total savings these benefits provide, it is clear they are substantial.

C. Protection of the Financial Sector

As many are aware, Vermont banks are weathering the current economic storm surprisingly well as compared to banks in neighboring states. In New England, only Vermont banks posted a profit in 1990. Through the first quarter of 1991, Vermont not only had the lowest percentage of nonperforming loans in the region, it also had the lowest percentage of nonperforming real estate loans.

It is fast becoming conventional wisdom that the relative strength of Vermont's banking industry is attributable in large part to the impact of Act 250. According to economists and bankers alike, Act 250 prevented the kind of speculative real estate developments that failed during the recent economic downturn and left many banks in Maine, Massachusetts and New Hampshire in the red.

Because Act 250 imposed costs not normally found in other states, fly-by-night, default-prone investors were more inclined to borrow and build in Massachusetts and other exploitable states. As a consequence, when the real estate bust hit, Vermont banks were not sitting on millions of dollars of vacant office space as neighboring banks were.

To appreciate this phenomenon, it is helpful to consider the case of New Hampshire. Because of New Hampshire's proximity to Boston and its laissez-faire approach to government, development was rampant during the recent real estate boom. As a consequence, the loan portfolio of New Hampshire banks became dominated by real estate loans. When the real estate bust

*As noted earlier, it is not evident that Act 250 has significantly deterred growth. However, it is likely that the great majority of developers that are deterred by Act 250 are of the sort that have caused most of the region's banking problems.
came, Vermont banks suffered to a far less degree. While it is clear that other factors were at work, it seems fair to suggest that Act 250 helped Vermont's banks by deterring under-capitalized speculators and moderating the boom to bust cycle which caught the rest of New England off-guard.

A recently conducted survey of Vermont banks suggests that this assessment is shared by Vermont's banking community. Indeed, over 93% of the respondents indicated that Act 250 helps moderate land speculation and excessive growth in Vermont. Eighty-one percent of the respondents believed that Act 250 has a moderately positive or slightly positive effect on Vermont's banking industry, while only 13% believed it had an adverse effect.

It is interesting to note that Act 250 is not the only land use law receiving credit for protecting banks. According to a spokesperson for the Oregon Banking Association, Oregon's land use laws deserve much of the credit for the health of the state's banks—banks recently ranked as among the healthiest in the nation.

Needless to say, the protection of a state's financial sector is important. The great majority of real estate transactions involve bank loans. Furthermore, businesses regularly borrow to maintain working capital needed for day-to-day operations. If banks are overburdened by bad loans, their ability to lend decreases. For example, in 1989 the gross loans of New Hampshire banks fell 1.32%. In 1990, gross loans plummeted 10.33%. In Vermont, however, because of the relative health of the state's banks, gross loans increased through this period, albeit at a slower rate than before the recession.

When gross loans contract, as they did in New Hampshire during 1989 and 1990, the economy suffers. Without the needed capital to spawn new businesses and support existing ones, the economy has no fuel to drive it. This is critical during recessionary times when the economy needs as much fuel as possible.

All in all, Act 250 has served the state's financial sector well. By minimizing lender risk, Act 250 has enabled Vermont banks to promote new businesses and support those in need of help—functions critical to economic growth and recovery.

D. Conclusion

It is important to recognize that this section does not represent a comprehensive listing of all the benefits flowing from Act 250. For example, documented economic benefits flow from the encouragement of cluster development, the protection of historic sites and the promotion of aesthetically pleasing landscapes. Furthermore, there are benefits that occur simply because there is a review process. The process makes developers plan and enables them to anticipate and mitigate costly problems that would ordinarily be overlooked.

Despite the incomplete treatment, it is apparent that Act 250 provides significant economic benefit to the state. It is, of course, equally apparent that Act 250 slows growth. However, it appears that this impact is neither severe nor, in view of the New England bank crisis, as detrimental to the economy as commonly thought.
Accordingly, the notion that Act 250 is a positive—not negative—economic force seems not only plausible but, indeed, quite likely. Below, the credibility of this proposition is tested by considering Vermont's macroeconomy over the life of the Act.

IV. MACROECONOMIC IMPACT OF ACT 250

To assess the credibility of the notion that Act 250 is a positive, not negative, economic force, two different macroeconomic indicators—income and employment—are considered. In addition, the impact of Act 250 will be analyzed with the use of national business climate rankings. While these three indicators do not and cannot prove the underlying proposition, it is clear they support it.

A. Income

Over the past sixty years, Vermont's economy has been battered by numerous recessions. These include the Great Depression, the recessions of the early 1970's and 80's and the current regional and national recession. Through them all the standard of living in Vermont, as measured by per capita income, has continued to rise.

Vermont's per capita income as a percentage of the national average has also increased. In 1950, per capita income hit an all time low of 72% of the national average. From this date onward, Vermont's economy began a long recovery interrupted only by the oil embargo induced recessions of the 1970's, which impacted Vermont more severely than the nation as a whole.

During the 1980's, Vermont's income rose at a remarkable rate in relation to the nation. In 1979, Vermont's per capita income was $7800, ranking the state "[37th] in the nation." By 1988, income increased to $15,600, launching Vermont's ranking to 25th. The following year, per capita income rose to 95% of the national average. Although Vermont's performance was not as strong during the 80's as some New England states, this is mostly due to gains made by southern states during the mid-eighties real estate boom. These gains are now disappearing in the current recessionary environment.

What do these data prove? At the very least, they demonstrate that Act 250 has no far-reaching negative effects on the Vermont economy, as measured by per capita income. Furthermore, while the findings do not prove the notion that Act 250 helps Vermont's economy, they support it. Over the life of the Act, per capita income in Vermont has increased at a rate of 1.9% per year. As a result, the post Act 250 period saw Vermont significantly improving its economic position relative to the rest of the country.

B. Employment

Macroeconomic effects can also be measured by employment changes. Over the life of the Act, employment has shown steady gains. From 1969 to 1990, Vermont's nonagricultural employment increased from 145,500 to 257,600. The rate of growth during this period is shown next, in five year increments.
There is no indication that Act 250 has had any far-reaching negative impact on Vermont's economy, as measured by employment data.

More important than employment growth is the fact that Vermont's share of New England's nonagricultural employment increased over the life of the Act. In 1969, Vermont's share of nonagricultural employment was 3.25%. By 1990, this share increased to 4.04%. Part of this gain is attributable to Vermont's increased share of "high value-added" manufacturing jobs.69

On the basis of these data, it appears that Act 250's macroeconomic impact is positive (or at least benign). Certainly there is no indication that Act 250 has had any far-reaching negative impact on Vermont's economy, as measured by employment data. Employment rose steadily throughout the life of the Act and Vermont increased its share of New England's jobs. Again, if anything, the data support the notion that Act 250 positively impacts the economy.

C. National Business Climate Rankings

National business climate ratings do not directly measure economic performance. Instead, they rank states according to the economic costs and benefits of doing business. Consequently, these ratings are helpful in determining whether a regulatory scheme such as Act 250 negatively impacts a state’s business and/or economic climate.

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The three major ratings of state business climates are conducted by Grant Thornton, Corporation for Enterprise Development and INC. Magazine. Grant Thornton is an accounting/management consulting firm and issues yearly ratings using 15 indicators. Corporation for Enterprise Development issues a more extensive rating which is based on 100 indicators. INC. Magazine concentrates on small entrepreneurial firms and uses nine indicators in its rating system. The previous table sets out Vermont's rankings from these services for the years which could be acquired.

These data do not support the notion that Vermont's economy suffers under an adverse regulatory scheme. The ratings clearly imply that the perception of Vermont is positive with respect to the costs and benefits of doing business. This is especially so for the years 1987 through 1990—a time during which Act 250 was criticized by business interests for its adverse economic impact. Once again, the data support the notion that Act 250 positively impacts the economy.

CONCLUSION

The negative impact theory postulates that Act 250 depresses Vermont's economy. However, after reviewing the evidence, it appears that this notion may be misguided. Although Act 250 does slow down growth, this impact seems neither severe nor, in light of New England's banking problem, entirely negative. In contrast, the benefits of Act 250 are substantial both in number and impact and suggest that Act 250 is generally a positive economic force—an assessment which is supported by the macroeconomic data considered above.

The proposition that Act 250 is a positive economic force is important because in times of economic hardship, the first thing targeted for abolition or major reform is regulation. Unfortunately, this sort of reaction can cause more economic distress than relief if the regulation targeted provides more benefit than harm—as may be the case with Act 250.

Abolishing Act 250 or limiting its jurisdictional and/or substantive scope would only encourage the kind of development that the Act was designed to prevent. It would also deprive Vermont of much of the economic benefit that flows from the Act. As was noted during Act 250's infancy, "if uncontrolled resource exploitation were the sine qua non of prosperity, West Virginia would be the most prosperous of all the American states. And it would be closely followed by Alabama and Mississippi."

Revising Act 250 to improve efficiency is fine. Indeed, it is recommended. However, in our zeal to correct perceived problems we must remember that Act 250 is not an economic liability. Rather, it is, and has been an economic asset.

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ENDNOTES

1. See e.g., 1991-1992 Green Index, published by Island Press. This publication provides a state-by-state review of environmental conditions and ranks Vermont in the top three.


5. Id.


9. Telephone interview with Michael Griffin, Chief of Research and Analysis, Vermont Dept. of Employment and Training (March 26, 1992). The national average is 85.3%.


12. Id., at 2.


15. Id., at 37.


19. Agriculture, fisheries and forestry represent approximately 3.2% of the GSP (Northern Economic Consulting, Inc., The Vermont Economy Newsletter, 3, October 1, 1991). Tourism represents another 15% or 16%. Although no calculations have been made, it is assumed here that the revenues generated by residential recreation and "green trade" contribute another percentage point or more.


24. This estimate is based on figures supplied by Michael Griffin, Chief of Research and Analysis, Vermont Dept. of Employment and Training, Telephone interview, Michael Griffin, March 25, 1992. According to Mr. Griffin, the Vermont labor force is approximately 306,000.


26. The Sunday Rutland Herald and the Times Argus, Dec. 8, 1991, at 1, col.1. It should be noted that a portion of this amount may be included in the figure given for Agriculture and Forestry.

27. Id.

28. Id.


31. Telephone Interview with Michael Griffin, Chief of Research and Analysis, Vermont Dept. of Employment and Training (March 26, 1992). Vermont's labor force is approximately 306,000.


35. Id., at 37.

36. Although the conditions were authorized by both Act 250 and Vermont Health Regulations, this example illustrates how the Act, and environmental regulation generally help prevent the incurrence of monetary loss associated with environmentally unsound development.


38. Id., at 21. This source relates only to the proposition that infrastructure increases the productivity of private capital.


40. Id., This estimate included the added fuel and insurance costs associated with the congestion.

41. Chittenden County Regional Planning Commission, Williston/Taft Corners Transportation Study, (December 1987)

42. Id.


44. Id., at 41.


46. Id.


48. 10 V.S.A., section 6086 (a) (9) (F).


52. Id.


54. Most of the data used in this section were furnished by Dick Heaps of Northern Economic Consulting, Inc.


56. New Hampshire Banks 1990 Loan Portfolio, FDIC.
57. Nonperforming Loans-New Hampshire and Vermont Banks, 1984-1990, FDIC.

58. This survey polled 51 lending institutions in the state on issues related to Act 250. The response rate was approximately 30%.

59. The remainder thought that Act 250 had no effect.


62. Most of the data used in this section were furnished by Dick Heaps of Northern Economic Consulting Inc.


66. Id.


68. Dick Heaps, Northern Economic Consulting, Inc.
