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A "Good Business Climate" as Bad Economic News?

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Abstract *One common concern about strong environmental regulations is that they will detract from one area's "business climate," limiting or driving away economic growth. Ironically, although the usual assumption is that businesses focus more narrowly on economic factors than do persons holding environmental concerns, it appears that little if any systematic attention has been devoted to the logic or the facts behind such "business climate" claims. The connections have generally been assumed, not demonstrated. Systematic, national-level ratings of state "business climates" have now been available for more than a decade. Using the upper midwest state of Wisconsin as a reference point, this paper examines the predictive validity of three of the best-known ratings. On average, "good" business climate ratings actually predicted worse economic outcomes; the states named as having "bad" business climates actually had better economic performance (growth in jobs and incomes) over subsequent 5- and 10-year periods. The findings are particularly clear with respect to incomes: The low-ranked states experienced \$585 to \$1100 more growth in per capita income for the 5-year period following each of the three rankings than did the top-ranked states, and the income benefits associated with "bad" business climate ratings actually increased over time.*

Keywords Economic development, employment, environmental protection, human capital, income, natural resources, regulation

Introduction

Particularly in industrialized nations, some of the most salient interactions between society and natural resources take place through the mediation of technological and political systems. The proximate causes of environmental degradation often involve the operation of technologies, principally those developed in pursuit of profit, and the primary constraints on degradation are thought to result from regulations imposed by the polity. A common concern, however, is that the regulations will constrain not just environmental degradation, but also economic growth.

Over roughly the past decade, as many regulatory responsibilities in the United States have fallen to the states, this concern has come to be expressed in terms of state "business climates." The argument has been that imposing environmental requirements

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can cause a state to become less attractive for economic expansion, potentially causing businesses to move to where they will find the regulatory conditions to be more favorable.

This paper provides a closer examination of the "business climate" concept, focusing in particular on experiences in the upper midwestern state of Wisconsin. The issue has become quite an important one in this state. The 1986 gubernatorial campaign saw the defeat of an incumbent Democratic governor, who was formerly the head of the state's Department of Natural Resources, by a Republican challenger who claimed that the state had become so unattractive to businesses as to chase them away, harming the income and employment prospects for the state's residents. The Republican governor was overwhelmingly reelected in 1990, campaigning in large part on the steps he had taken to improve the state's climate for business expansion.

The paper begins with a brief discussion of the "business climate" notion and its measurement. The next section provides a brief discussion of methods and data sources, after which the paper turns to empirical tests, assessing whether some of the best-known of the business climate ratings have in fact proven to be useful predictors of actual economic performance. The final section discusses conclusions and implications.

Background: The Policy Context

As critical observers have noted, business and economic elites tend to play key roles in the promotion of policies that favor business interests and economic growth, with this tendency being particularly strong at local and state levels in the United States (Broadbent, 1989; Molotch, 1976). Environmental regulations have the potential to be particularly problematic for such elites: The regulations are intended to protect not just a narrow segment of society but the physical health of the public as a whole, and they have proved to be quite resilient in their popularity. Despite early predictions that environmental protection would suffer from the same kind of "issue-attention cycle" of declining concern that has affected any number of other issues (Downs, 1972), public support for environmental protection measures has not only remained high but has grown, with the best available longitudinal measures indicating that, by the late 1980s, concern levels had returned to or even exceeded the highest levels documented at the peak of the environmental movement of the early 1970s (Dunlap, 1987, 1990). So widespread is the support for environmental protection, in fact, that studies of environmental concerns sometimes note the difficulties of finding strong sociodemographic correlates for environmental concern measures (Freudenburg, 1991; Morrison, 1986).

Although it might still be possible for genuinely all-powerful social actors to ignore or overpower such widespread consensus—if, in fact, such all-powerful actors could be found—the area of environmental politics has long been recognized as one in which "unpolitics" might prove more effective (Crenson, 1971). Rather than expending potentially vast quantities of political, economic, and other resources in all-out frontal attacks on environmental laws and regulations, business leaders of the information age could find it more efficient to follow a more subtle approach—declaring themselves to be concerned about the environment and even actively supporting actions having high symbolic value, such as litter clean-up campaigns or tree-planting efforts by local scout troops, while quietly taking behind-the-scenes steps, such as lobbying against regulatory staffing levels in the name of fiscal responsibility or urging the reduction of "bloated" bureaucra-

cies, to weaken environmental regulations. In addition, business leaders could find it to their strong advantage to alter the terrain of political discourse through efforts to shape and, in some cases, to "lower" environmental consciousness (Schnaiberg, in press).

Recent years have seen the growing use of a concept that appears to have considerable usefulness both in separating the abstract from the pragmatic aspects of environmental regulation and in shaping the broader context of public consciousness within which political debates over environmental regulation take place—the notion of a "business climate." Although the concept is often defined only sketchily, if at all, it is generally thought to measure the extent to which a state or locality will provide a set of conditions under which businesses are likely to thrive. Particularly important considerations include "state and local government fiscal [tax and spending] policies, state-regulated employment costs . . . and community receptivity" (U.S. Chamber of Commerce, 1985), all of which are seen as being likely to play important roles in the promotion of economic growth through the attraction and encouragement of business activities. As might be expected, governmental spending on environmental protection is one of many factors pointing toward less favorable ratings. In the case of the Grant (1982) ratings that are analyzed below, roughly one-fifth of the total rating weight is associated with the ecological factors of energy costs, state environmental control spending, population density, and population change (the last two factors being given positive evaluations).

It is common for business decisions to be characterized as "objective" ones. Indeed, business actors are often criticized for displaying an excessively narrow or cold-hearted objectivity and for ignoring or forgetting more abstract or subjective considerations such as community well-being. Yet there are two basic approaches to the measurement of the "business climate" notion (which is hereafter discussed without quotation marks), and the approach that is by far more prominent is actually anything but objective. The less prominent (and more objective) approach does stress actual measures of economic performance—"output measures," such as the number of new jobs created and the success rates for new business enterprises (Corporation for Enterprise Development, 1989; Hyatt, 1987). However, the better-known and more influential ratings actually focus not on economic performance but on "input measures" that are *thought* to influence subsequent performance. The most politically salient of the factors involved in these more subjective ratings are those that involve state and local policy options such as taxation levels; state and local spending on programs, particularly social welfare programs, that are unpopular among business leaders; and, notably, the exercise of regulatory powers over matters such as zoning and environmental protection.

Part of the reason for the influence of these subjective or normative ratings is that they focus on decisions that are within the policy-making control of state and local governments. Another reason may be that the ratings reflect views that are widely embraced within the business community. Yet perhaps the biggest reason of all is that the more subjective ratings also have characteristics that make them particularly well-suited for agenda-control purposes—a point that requires additional discussion.

The Theoretical Context: Power and Policy

Historically, the most clear-cut and perhaps the most common conceptions of influence or power have been those involving the direct exercise of force or the classic Weberian

test of the ability to obtain an outcome even when it goes directly against the will of another actor. In recent years, however, such starkly stated approaches have been supplemented by more subtle or sophisticated ones. Particularly important discussions have focused (1) on non-decision-making, or the ability to keep certain topics from becoming a focus of public debate (Bachrach and Baratz, 1970; Gaventa, 1980); (2) on systemic power and on what might be called conditional cooperation, as when powerful actors control resources that are necessary for other local actors to reach desired goals and agree to make the resources available on the condition that certain requirements are met (Stone, 1980); (3) on superior access to the kinds of technical information that are increasingly important to broad categories of decisions in advanced industrial societies (Schnaiberg, 1980); and (4) on the ability to negotiate preferential procedures, working behind the scenes to shape the ground rules of agency decision-making in advance of the time when contentious policy decisions are actually debated (Ford, 1982; Galanter, 1974; Kunreuther et al., 1982). For the purposes of this paper, however, the subtle form of power that is of central interest is what is here called agenda control—the ability to control, or at least to exert a major influence on, the identification and selection of topics for political debate and, ideally, the vocabulary with which the topics are discussed (Freudenburg, 1986a; Kunreuther et al., 1982; Stallings, 1990).

The business-climate concept is almost ideally suited for agenda-control purposes. Growth and jobs provide highly salient concerns not only to business elites but also to local workers, and, at least in the United States, keeping the economy running and growing smoothly is apparently high on the list of what voters expect from their elected leaders (Tuft, 1978). This means that the issue is relatively easy to bring to public attention and then to keep active on the agenda of political discourse. In addition, *so long as the question itself is salient in voters' minds*, the outcomes are likely to be more beneficial to business leaders than if other topics are the subject of debate, *almost regardless of the answers to the questions*. In the example of the business-climate concept, so long as the key question on people's minds is something like "Are we doing enough to make our area attractive to business?" (rather than some alternative question such as "Are we doing enough to protect the environment?"), not only is attention diverted from questions that might be awkward for local business leaders, but enough doubt can be raised in the minds of enough voters (and leaders) to create support or at least neutrality toward policies that are designed to benefit the local business community. Even if the typical voter or leader winds up unsure of whether or not the area is doing enough to help local businesses, the typical tendency is still to give businesses "the benefit of a doubt."

One implication is that the more subjective ratings may sometimes prove more effective in real political terms than measures of actual economic performance. If voters perceive the state's business climate to be a problem, their voting behaviors will tend to reflect those perceptions, independently of the actual performance of the economy. At a more subtle level, facts are often inconvenient, particularly for politicians who seek to promote a given political outcome. A skilled politician can often create the perception of a problem or potential problem, almost regardless of the facts. In short, although it may indeed be true that, in political debates, information is ammunition (Freudenburg, 1986b; Weiss, 1983), useful ammunition also may be provided by misinformation and/or by partially accurate information, provided such claims are widely perceived as true.

Implications for Economic Outcomes

Although the short-run political usefulness of a claim may be largely independent of its actual accuracy, the long-run well-being of a state or region may be powerfully influenced by the accuracy of the assumptions upon which policy decisions are based. As noted above, however, systematic and quantitative examinations of business climate ratings have been far less numerous than political and media uses of the same ratings.

To the extent to which quantitative tests have been performed, moreover, they have provided little support for the underlying logic. For example, for at least three decades studies have failed to find consistent evidence that state or local tax rates exert a negative influence on economic performance (Due, 1961; Thompson and Mattila, 1959; Thurow, 1980). Within the past several years, studies that focused more specifically on business-climate rankings also produced results that are mixed at best. Using one of the measures that is employed in this paper's own analysis, Plaut and Pluta (1983) found results in the expected direction, but much of the time period considered in their study actually had elapsed *before* the rating measure was published, not after. More recent studies using superior methodologies have called into question the Plaut and Pluta findings (Biermann, 1984; Erickson, 1987; Skoro, 1988).

There is, however, an important catch: The presumed economic benefits, in effect, represent a generally untested hypothesis. For the most part, scholarly analyses to date have dealt with less tangible questions—arguing, for example, over whether the policies generally thought to represent a favorable political climate for businesses might better be seen as representing a “class-organization” model, in which an inner circle of large corporations “work together to ensure that public policies will not depart from their core interests” (Jacobs, 1988, p. 857; Useem, 1984) or whether, instead, such policies represent an “exchange-dependency” model in which political actors have interests of their own but have such a need for economic resources that “politicians find themselves perpetually seeking to maintain business confidence” (Quinn, 1989, pp. 1419–1420; Lindblom, 1977).

In addition, although the empirical implications of business-climate ratings are open to question, there are at least three problems with the underlying logic that deserve mention here. The first is *the very extent of local desires for growth* in most states and regions of the United States. Many states and communities have made strenuous or even desperate efforts to attract new forms of employment (Humphrey and Krannich, 1980; Krannich and Humphrey, 1983). The level of desperation has been particularly great in areas that are more rural, more distant from the Atlantic and Pacific seaboard, and in more desperate economic straits than the coastal regions that have been the primary beneficiaries of economic trends over the past decade (Falk and Lyson, 1988; Flora, 1990; Hyatt, 1987).

The influence of desperation is particularly notable given the political importance of the highly visible facilities involving large numbers of manufacturing jobs. As noted by a publication about new jobs the evidence shows that large manufacturing concerns actually account for a disproportionately small proportion of the creation of new jobs, in fact, “In the past decade, the nation's 500 largest manufacturing concerns have not added a single job to their collective total” (U.S. Chamber of Commerce, 1985, p. 19; Drucker, 1986; Flora, 1990). In addition, the interstate movement of large-scale facilities accounts for an extremely small number of actual jobs (Summers, 1976), unemployment rates in rapidly growing areas tend to be no lower than those found in stable or

even declining regions (Molotch, 1976), and even if growth-inducing facilities are successfully attracted, residential growth tends not to pay its own way (Urban Land Institute, 1975).

This paper takes no position on the objective desirability of growth, but it is worth noting that, among local business leaders at least, growth is commonly considered to be highly desirable in spite of its fiscal and environmental drawbacks (Molotch, 1976; U.S. Chamber of Commerce, 1985). This orientation among local leaders points to an obvious question: In cases where local leaders are sufficiently desirous of economic growth to offer concessions or subsidies to attract it (Humphrey and Krannich, 1980), how much of a subsidy, on average, would they be willing to offer? As an equilibrium answer, it would be reasonable to expect offers up to, but not beyond, the level of benefits that local leaders would hope to enjoy. Those expected benefits might be economic, as in an improved tax base, but might also involve less tangible considerations, such as increased community or personal prestige. Overall, in fact, the most reasonable expectation may be that local leaders will offer subsidies that will not only match but exceed the objective economic benefits provided by a new facility (Summers, 1976), particularly given political actors' desire to win credit for attracting major new sources of employment to the area (Broadbent, 1989; Stone, 1980). This expectation receives at least indirect support from the fact that, particularly in recent years, studies found relatively little evidence of effectiveness for the types of steps commonly taken by rural communities to attract growth (Humphrey and Krannich, 1980). Indeed, there is evidence that the communities gaining the most from industrial development are the ones that have spent the least to attract it (Ekstrom and Leistriz, 1988; Summers, 1976).

A second reason for interest is that, although it is relatively common to discuss the “false consciousness” of workers and local political leaders, there is at least an empirical possibility that local business leaders also favor policies that actually work to their disadvantage. As is noted in greater detail below, this *potential for an “elite false consciousness”* might be especially great with respect to policy preferences having emotional or even ideological content—a condition that appears to obtain in policy debates over the business climate concept.

The third reason for concern is that, at least from alternative perspectives, *there may be reasons to expect some of the steps normally associated with an “improved business climate” to be detrimental to the long-term economic health of a region.* Examples are provided both by investments in social welfare programs and education and by environmental regulations. Social welfare and educational investments, which often seem “wasteful, extravagant, and liberal” in the eyes of business interests (to quote one particularly outspoken businessman), tend to be seen as investments in “human capital” by other perspectives (Becker, 1964). Investments in environmental protection tend to be investments not so much in the building of “biological capital” but in the maintenance of what already exists. Cutbacks in environmental spending and regulatory enforcement may mean that the region later will need to pay for remediation of problems that could have been dealt with more cost-effectively if they had been prevented or minimized at the time of occurrence. Although a short-term view of market economics might hold that environmental regulations impose “needless” costs, driving away consumers and decreasing market efficiency, it is reasonable to argue that environmental regulations often do just the opposite. Such regulations may improve economic efficiency by ensuring that the true cost of a product actually shows up in the price tag, allowing potential customers to judge a product's value against its full cost, rather than having portions of the true cost

externalized, hidden, or subsidized by other persons, such as neighbors of polluting plants, future residents of polluted regions, and so forth.

Analysis

Methodological Considerations

First, if the validity of business climate expectations is to be tested empirically, a predictive test is necessary. The question is not so much whether the areas thought to have a good business climate are enjoying greater prosperity at the time of the rating, but whether a superior business climate will help an area to enjoy greater *subsequent* prosperity. As one proponent put it to the present author, the market-oriented measures that proliferated during the 1980s are intended to "promote long-term economic gain, whatever their short-term social pain." It is important that enough years have elapsed since the time of the business-climate rating to permit a reasonable assessment of its predictive utility.

Second, it is necessary to ask what kinds of economic outcomes provide the best measures of success. Given that popular discussions of economic climates have often focused on both jobs and income, it would be inappropriate to choose either measure at the exclusion of the other; accordingly, both *growth in income* and *growth in jobs* are considered in the analyses below.

Third, it is necessary to decide *which* business climate ratings will be used, and for *which jurisdictions*. Virtually anyone who has ever run for a political office or attempted to influence the outcome of an election has had an opportunity to make claims about the "climate" of one jurisdiction relative to others. This points to the need for ratings that are widely accepted as valid and "objective" (at least within the community that is most attentive to economic development issues), rather than measures that may be idiosyncratic. The main drawback of using such well-known indicators is the likelihood of a positive bias. If these ratings are as influential as many business and political leaders claim, their very influence could create a self-fulfilling prophecy, with businesses moving to the best-rated states in part because the ratings themselves had extolled the virtues of these locations. Given the need to have the most neutral ratings possible, however, this risk is worth incurring. This analysis focuses on business-climate ratings that (1) are widely accepted and (2) were published at least 5 years in advance of the most recent income/employment figures available at the time of this writing (i.e., the 1987 figures). Multiple ratings are employed, both to allow reliability comparisons and to guard against the possibility that any given rating might be particularly flawed, no matter how widely accepted. These considerations lead to a focus on state-level ratings, which are available from numerous sources.

Data

Three specific ratings of business climates have been selected. Although each has been widely used and accepted, they were prepared by three different organizations, and they rate the states on two different kinds of scales. One of the ratings uses "grades" of A through F, and the other two provide more differentiated ratings of the contiguous 48 states, from 1 through 48. The A-F ratings were provided by *Inc.* magazine in that publication's October 1981 "Report on the States" (Padda, 1981). One of the 1-48

rankings is the 1982 *Business Climates Study* by Alexander Grant and Company (based largely on data available as of late 1981). This firm remains active and widely known (under the name of Grant Thornton), and the specific ratings used here were also published by the U.S. Chamber of Commerce (1985). The other 1-48 ranking was an earlier (1975) classification by the Fantus Company, a pioneering firm whose ranking of business climates for the Illinois Manufacturers Association (the ranking that is used below) has been widely cited and copied and may have been the first of the ratings to compare the 48 contiguous states.

The information on employment is drawn directly from the figures for "Employees in Nonagricultural Establishments," the most reliable of the employment figures available on a state-by-state basis from the *Statistical Abstract of the United States* (U.S. Department of Commerce, 1989). The income figures represent personal income per capita in current dollars; these too are drawn directly from the *Statistical Abstract*.

To simplify the discussion of results, all three of the business-climate ratings have been coded so that a high (or good) rating is represented by a large number; for both the Fantus and Grant ratings, the state with the best rating is thus given the code of 48, and the one with the poorest rating has a code of 1. Given that the *Inc.* ratings are from A to F, the A grades are given the code of 5, while an F gets a 1.

Strictly speaking, measures of statistical significance do not have their usual meaning here, given that the data represent the universe of the 48 contiguous states rather than a sample. The significance measures are reported below, however, for those who are accustomed to using measures of statistical significance as a way of gauging the consistency of relationships.

Results

For the first set of analyses, the states have been dichotomized on each of the three measures, with one group consisting of states that were rated as having better business climates than Wisconsin and the other group consisting of those that were rated at Wisconsin's level or below. Although it would normally be expected that the greatest similarity would be found among ratings that were closest to one another in time, this appears not to be the case. Wisconsin ranked number 34 out of the 48 contiguous states in the 1975 Fantus ratings and received a quite comparable 36th-place rating from Grant in 1982, the rating most distant in time to that of Fantus. Just a few months before the Grant ranking, however, the state received a relatively high grade of B from *Inc.* in 1981, a grade exceeded by only 10 of the 48 contiguous states. (The state received a much less favorable rating from *Inc.* when the magazine shifted to a 1-48 rating system in late 1982.)

As noted above, however, the critical question has to do not with the degree of agreement among the ratings, but with the degree to which the ratings succeed in predicting subsequent economic performance. Table 1 presents the pertinent information, which has been summarized from a series of multiple classification analyses (MCAs). This technique allows for a relatively precise calculation of the extent to which the experiences of one group of states differ from those of another group. Negative values in this table mean that, as implied by the business-climate arguments, Wisconsin and the states rated below it suffered a penalty for their relatively poor business climates; by contrast, positive numbers mean that Wisconsin and the other low-ranked states actually

Table 1
Benefit (Penalty) Associated with Ratings At or Below
Those of Wisconsin^a

	Rating Firm/Year Years of Follow-Up			Means
	Fantus/1975 1976-1980	<i>Inc.</i> /1981 1982-1987	Grant/1982 1982-1987	
Number of states ranked higher than Wisconsin	33	10	35	—
Growth in:				
Income (dollars)	\$585.16 ^d	\$739.77	\$1093.76 ^c	\$806.23
R^2 ^b	0.209	0.091	0.091	0.40%
Income (percentage)	0.92%	0.09%	0.19%	0.40%
R^2	0.004	0.069	0.069	
Jobs (number)	159,867 ^c	-149,295	29,200	13,257
R^2	0.048	0.042	0.042	
Jobs (percentage)	-5.37% ^c	-0.01%	0.19%	-1.73%
R^2	0.072	0.069	0.069	

^aBenefit (positive value) means that states ranked as low or lower than Wisconsin actually did that much better over the 5 years in question than did the higher-ranked states. Penalty (negative value) means that, as expected, Wisconsin and lower-ranked states suffered from low ratings.

^b R^2 values for Grant and *Inc.* ratings are for equations that include both sets of ratings; benefits/penalties shown are zero-order effects.

^c $p < .15$.

^d $p < .001$.

enjoyed a benefit, over the 5-year periods in question, relative to the better-ranked states.

The first data column summarizes the results from the earliest of the three ratings, namely those produced by Fantus in 1975. As can be seen from the upper left cell, the results do have a level of predictive power that would be statistically significant if the results came from a sample rather than the population of 48 states, with results of this strength being expected to occur only one time in a thousand by chance alone. The difference, unfortunately, is in the wrong direction. Rather than suffering a penalty for what the Fantus Corporation considered to be poor business climates, Wisconsin and the other bottom-ranked states actually experienced almost \$600 more in income growth over the 5 years after the Fantus ranking than did the 33 states that were ranked above them. This equation does the best job of explaining the variance among the states of any of the twelve that are summarized in this table, with $R^2 > .20$. In percentage terms, the bottom-ranked states experienced approximately 1% more growth in income during the succeeding 5 years than did the top-ranked states. This difference, however, neither achieves nor approaches statistical significance.

The Fantus Corporation's expectations for jobs also provide little reason for states to express pride over "good" business-climate ratings. At least in raw number terms, the bottom-ranked states experienced a growth of more than 150,000 new jobs apiece, on average, than did the top-ranked states. In terms of percentage growth, however, the Fantus job results are in the expected direction, with the bottom-ranked states in fact experiencing approximately 5% less growth in employment than the top-ranked states. (As might be expected from this pattern, the difference between the raw-number results and the percentage results is due in part to the tendency of large states to receive relatively low Fantus ratings, whereas smaller states tend to be more highly rated.)

The ratings by *Inc.* and Grant in 1981 and 1982 produced similarly unimpressive results, despite the fact that Wisconsin enjoyed a relatively high ranking from *Inc.* but a low one from Grant. Both in terms of dollar amounts and in terms of percentage changes, the states that were rated as having poorer business climates actually experienced more growth in incomes over the 5-year period from 1982-1987 than did the purportedly top-rated states. Intriguingly, rather than improving, the ability to predict income changes actually deteriorates over time. Poor ratings on the latest index (Grant, 1982) are actually associated with more than a \$1000-per-person bonus for the residents of the bottom-rated states—an additional degree of growth in income that would approach (although not achieve) statistical significance if the data in question had been drawn from a sample rather than a population. Only in terms of the growth in jobs—and then only for the *Inc.* ratings—do the 1981 or 1982 ratings manage to predict in the correct direction, although with levels of success that do not approach statistical significance.

Overall, only one of the four possible tests for the earliest ratings (Fantus) manages to predict even in the correct direction, despite the expectation that such well-known ratings might have become self-fulfilling prophecies. There does not appear to have been a learning effect; none of the four possible tests of the most recent ratings (Grant) manages even to point in the expected direction. Only for the *Inc.* ratings were as many as two of the four outcomes in the expected direction—and intriguingly, although *Inc.* had the best track record of the three, the magazine abandoned this entire approach a few years later, shifting instead to a system that focuses on objective performance data. Out of the twelve tests, in short, the better-rated states did worse than the bottom-rated states

in nine cases, or in three of every four tests. Even taking the means of the ratings shows that only one of the four (the percentage growth in jobs) is in the expected direction.

Regression Results

Although the findings summarized in Table 1 appear reasonably robust, it is possible that there might be something so unusual about the Wisconsin-specific cutoff points as to make these findings unrepresentative for the nation as a whole. This possibility seems highly unlikely, given that careful, independent analyses made available to this author after the present paper had been written (Biermann, 1984; Skoro, 1988) have found little in the way of predictive validity for the business-climate concept,¹ but it is possible to perform a pair of additional checks. The first is to examine the intercorrelations among the three ratings of business climate. This can be seen as analogous to assessing intercoder reliability, with the "coders" in this case being the organizations that produced the three business-climate measures.

A simple correlation matrix (Table 2) is sufficient to answer the question, and the results are similar to what might have been expected based on the MCA results. The *Inc.* and Grant ratings were the closest together in time and thus might be expected to have the highest correlation with one another; instead, as was the case for the Wisconsin findings, the highest correlation is found between the two ratings that are the most distant in time, namely the 1982 Grant ratings and the 1975 Fantus ratings, which correlate at .739.

Although the full correlation matrix is not presented here, the Fantus-Grant correlation indicates that these two firms saw the world in strikingly similar ways, despite the many changes that swept the nation between 1975 and 1982. The .739 correlation is higher than the correlation of either of these ratings with any of the 20+ economic measures for which correlation information is available from the analyses performed for this study. Interestingly, the highest correlations with economic measures tend to be found in association with measures of *then-current* economic vitality—and to be negative. The 1975 Fantus ratings, in particular, correlate at $-.632$ with 1976 per capita state income, and even the later *Inc.* and Grant ratings correlate at $-.304$ and $-.379$ with 1980 per capita income levels. Whether for reasons of substantive disagreement or the methodological factor of presenting its ratings on an A to F rather than a 1 to 48 scale, the *Inc.* rating shows a significantly lower correlation with both of the other two scales; its .442 correlation with the Grant index is almost as low as its .355 correlation with the Fantus scores that were produced half a dozen years earlier.

The strong negative correlations with then-current income levels add credibility to the possibility, noted earlier, that these ratings may not measure business climate as much as *economic desperation*. In general, the states that appear most eager to offer the kinds of subsidies and preferential policies associated with good business-climate ratings are those having weak economies. Moreover, at least at the aggregate level, those states' willingness to subsidize business ventures may prove to have done little to improve their subsequent economic performance (Falk and Lyson, 1988).

The second check is to verify such interpretations by comparing the three ratings against all the states' subsequent economic performance, using straightforward linear regression techniques. Table 3 summarizes the results. The 5-year changes in total employment and per capita income were regressed on each of the three business climate ratings. For the Fantus ratings, which are now sufficiently old to permit a longer term

Table 2
Correlation Matrix

	Fantus	<i>Inc.</i>	Grant	CINC8287 ^a	PINC8287 ^a	CEMP8287	PEMP8287	CEMP7582	PEMP7582	CINC7682	PINC7682
Fantus	1.000										
<i>Inc.</i>	.355	1.000									
Grant	.739	.442	1.000								
CINC8287 ^a	-.425	-.134	-.350	1.000							
PINC8287	-.152	.020	-.223	.754	1.000						
CEMP8287	-.163	.210	-.037	.383	.096	1.000					
PEMP8287	.034	.151	-.021	.388	.516	.108	1.000				
CEMP7582	.024	.299	.261	.072	.705	.256	.108	1.000			
PEMP7582	.098	-.032	.391	-.094	-.099	1.000	.256	.296	1.000		
CINC7682	-.204	-.062	.051	-.154	-.178	.176	-.198	.176	1.000		
PINC7682	.108	.135	.308	-.427	-.795	.193	-.245	.140	.881	1.000	

^aCINC variables all measure raw changes in income for the years indicated (C = change, INC = income, and 8287 = 1982-1987, for example). PINC variables measure *percentage* changes in income. Similarly CEMP measures change in employment for the years indicated, and PEMP measures percentage change in employment.

interest of large-scale business interests, may in fact be counterproductive even for them.

It is widely accepted that the less-powerful groups in society can suffer from "false consciousness," whether those groups consist of workers or sociologists. Another possibility, which may deserve more attention than it has received to date, is that society's most powerful actors may possess no immunity to this malady. Just as corporations reward managers for short-term performance measures, such as current profits, in a way that may work against the same corporations' long-term interests, it is possible that business climate improvements, such as lowered human capital investments or weakened enforcement of environmental and health regulations, may make the corporations' lives easier in the short run while weakening the nation's overall economic performance enough to harm corporate interests, at least collectively, over the longer run.

To repeat, the present study's data set does not permit a clear test of this possibility. Similarly, this study cannot be said to prove that environmental regulations are a hitherto undiscovered form of economic stimulus. What the study results do indicate is that, if state leaders are hesitant to impose otherwise desirable regulations for fear of what those regulations may do to the state's business climate, they may have reason to reexamine their thinking.

So may those of us who study society and natural resources. A particularly noteworthy possibility is that our traditional logic about the relationships between environmental protection and economic growth is now outmoded, whatever validity it might once have enjoyed. Environmental protection measures that are characterized as being prohibitively expensive at one point in time may come to be seen as spectacular bargains—the proverbial ounce of prevention—in comparison with the later pounds of costs for health care or environmental restoration efforts that aim at providing a cure.

Communities that offer increasingly generous exemptions from pollution regulations in the interest of attracting economic growth may find they succeed only in attracting "mature" industries with low wage-rates and declining economic prospects. They may do so, moreover, at the expense of making the area less attractive to newer industrial activities that create less pollution, pay higher wages, have better long-term growth prospects, and are attracted more by the presence of environmental amenities than by the opportunity to create environmental destruction without being constrained by state or local regulations.

These and other possibilities need to be tested by new research. Equally important, the new research needs to be guided by new ways of thinking about the problem. It is still entirely possible that environmental regulations will be found to impose the kinds of economic penalties they have been assumed to impose in the past. It is also possible that the reality will prove to be nothing of the sort. In either case, the time has come to stop simply accepting such assumptions and to start examining the data more closely.

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earlier draft. All errors and omissions, however, are strictly the responsibility of the author.

Note

1. The most thorough of the additional analyses is provided by Skoro (1988), who uses Spearman correlation coefficients to analyze subsequent changes in economic indicators, principally in several categories of employment, using ratings that include the Grant data summarized here and the *Inc.* ratings from the succeeding year. Skoro's findings show that his Grant and *Inc.* ratings do a reasonably good job of predicting employment changes from 1981 to 1984, but that they are considerably less successful when the time period is extended to 1986. Given that the 1981-1984 period was well underway by the time of the 1982 publication date of the two ratings he considered, it is possible that the shorter term evaluation would be as much an artifact of "predicting" past behavior as appears to have been the case for the Plaut and Pluta (1983) findings. In addition, Skoro's more detailed examination generally provided support for his hypothesis that "a major reason for the predictive power of both the Grant Thornton and *Inc.* indexes is the fact that recent economic success is correlated with success in the near future and that other elements in both indexes are relatively inconsequential" (Skoro, 1988, p. 148). Once statistical controls were imposed for existing economic trends, even minor predictive successes of the business climate ratings were difficult to find. Overall, Skoro's independent analyses led him to the conclusion that these sorts of business-climate indexes "are useless as predictors . . . [and] worse than useful as guides to state and local government action" (Skoro, 1988, p. 151).

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