

**The Political Economy of Gubernatorial Smokestack Chasing:
Bad Policy and Bad Politics?**

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Abstract

Why do states persist in offering large financial incentives to firms to induce them to relocate to or expand in the state, a practice commonly derided as “smokestack chasing?” The conventional wisdom is that while incentives have little effect on firms’ business in the long term, they are a good political strategy for governors seeking to improve economic conditions and political support in the short term. I test these hypotheses by examining the economic and electoral impact of industrial recruitment policies in Wisconsin, Virginia, Michigan, North Carolina, Maryland, Indiana, and Kentucky. I find first that these policies pay immediate dividends for governors by increasing county level job growth and per capita income by the next election. Second, governors recruit firms strategically to relocate to counties that opposed them in the previous election. But, third, this industrial recruitment does not increase electoral support for the governor. In fact, the more success a governor has in recruiting firms or jobs to a county, the fewer votes he or she receives in the next election.

A long-standing puzzle for scholars and practitioners of economic development policy is why states and their governors continue to shower tax incentives and subsidies on firms to induce them to relocate to their state while studies consistently show that such incentives do not have the desired effect in the long run (Wolman 1988). Such “smokestack chasing” (Atkinson 1993, Graham 1993, Ross and Friedman 1990) was especially ferocious in the 1970s, and while the states appeared to have reduced these activities somewhat in the 1980s, recent research suggests states are returning to their old habits with a vengeance (Eisinger 1995, Corporation for Enterprise Development 1994, Herzik 1991). Alabama’s winning the 35-state, 100-site contest to attract the new Mercedes sports utility vehicle plant in 1993 with a whopping \$300 million worth of incentives for 1,500 jobs, is viewed as the prime example of the states’ return to smokestack chasing (Mahtesian 1994).

Why do governors and other economic development policy-makers keep ignoring their analysts and academics on the efficacy of these policies? The accepted explanation among scholars is that when governors are given the choice between the immediate economic and electoral gratification from industrial recruitment and the uncertain long-term effects of other types of economic development policies, they choose the former (Eisinger 1995). Governors need worry most about jobs and growth in time for the next election and therefore pursue highly visible smokestack chasing policies. Thus, while smokestack chasing is a poor long-term economic development strategy, it is presumed to be a sound political strategy akin to credit claiming in legislatures (Mayhew 1974). However, while this explanation has been widely accepted (Elkin 1987, Feiock and Clingermayer 1986, Wolman 1988), it has never been tested empirically.

To help sort out these potential benefits to governors and understand their affinity for smokestack chasing more deeply, I examine three questions empirically. First, can governors influence the location decisions of firms within the state systematically and strategically? Second, can industrial recruitment policies improve economic conditions in a county by the next election? Third, does success in attracting firms and creating jobs improve the electoral performance of the governor?

I address these questions with an analysis of economic development policy and gubernatorial elections in Wisconsin, Virginia, Michigan, North Carolina, Maryland, Indiana, and Kentucky in the 1990s. These are industrial states whose governors varied in their aggressiveness in industrial recruitment policy. Michigan, North Carolina, and Virginia have been ranked among the top 10 most attractive states for industrial relocation by *Site Selection Magazine* (Arend 2002). In contrast, Wisconsin and Maryland are much less aggressive in recruiting firms. The 1990s represent a particular opportune time to study the political impact of smokestack chasing since it corresponds with a resurgence of incentive based economic competition among the states (Eisinger 1995; Corporation for Enterprise Development 1994). Finally, Republican governors served in Wisconsin, Virginia, and Michigan during the study period, while Democrats governed North Carolina, Maryland, Indiana, and Kentucky.

The Evolution of State Economic Development Policy

Since the 1970s, economic development has maintained a central place in the policy and political concerns of state governments (Herzik 1983, Clarke 1986, Vaughn, Pollard, and Dyer 1984). Increasing unemployment and international competition in the 1970s and early 1980s and the lack of a national level competitiveness policy, led state and local policy-makers to expand

and experiment aggressively with new economic development strategies (Graham 1993). Initially, the states responded to this policy challenge with tax abatements, investment credits, low-interest loans, land write-downs, and labor-training grants to reduce labor and operating costs and lure manufacturing plants to their state (Cobb 1982). However, increased competition from low-cost countries like Mexico and China raised new doubts about the efficacy of such low-wage strategies (Fosler 1988, Hansen 2001). States responded in the 1980s by adopting a more interventionist and entrepreneurial approach to economic development such as investing in venture capital funds, research and development facilities, business incubators, export promotion, technology transfer, and business start-up programs (Eisinger 1988).

Figure 1 here

Despite the adoption of these new demand-side policies, the old industrial recruitment philosophy and tax incentive programs remained a significant component of state economic development policies (Leicht and Jenkins 1994; Grant, Wallace, and Pitney 1995). In particular, the economic recession of the early 1990s tilted the policy mix away from entrepreneurial policies and back toward industrial recruitment as policy-makers felt the political pressures to create jobs (Eisinger 1995). In the 1990s, most states increased the number of tax concessions, loans, and outright cash grants available to firms willing to relocate or expand in the state (Corporation for Enterprise Development 1994, Chi 1997). Figure 1 documents the dramatic expansion in the number and variety of state economic development financial and tax incentives from 1976 to 1996. Moreover, anecdotal evidence suggests that the value of these incentives has also dramatically increased. For example, in 1984, Tennessee enticed a Nissan plant to the state with a package of incentives equal to about \$11,000 per job (Milward and Newman 1989). In

1993, Alabama won an intense bidding competition for the new Mercedes sports utility vehicle facility by offering incentives worth \$300 million, about \$200,000 per job (Mahtesian 1994).

The Limits of Industrial Recruitment as an Economic Development Strategy

This persistence and growth of these industrial recruitment policies is puzzling in face of the mounting evidence of their economic inefficiency and detrimental side effects. The problems with these state incentives are threefold. First, they are typically too small to affect firms' site selection decisions. Second, certain incentives, like tax abatements, erode a community's tax base, undermining its ability to provide critical public goods. Third, these incentives can lead to detrimental competition among the states that produces no economic benefit for the nation as a whole. I expand on each of these points below.

Scholars have shown that state tax incentives have a limited impact on firm location decisions. Most firms choose their locations based on the availability of labor, land, and transportation, and the proximity of customers and suppliers rather than on regional tax differences (Blair and Premus 1987; Barkley and McNamara 1994; Fisher and Peters 1998). *Site Selection Magazine*, the premier industrial relocation magazine, differentiates between "must" and "want" criteria for business relocation (cited in Spicer and King 1996). "Must" criteria are essential factors that would disqualify a location if they were not available, and could include a minimum site size, access to rail lines or a major airport, availability of water and natural gas, or other requirements. "Want" criteria are location factors that are desirable, but the lack of which could be compensated by strengths in other areas. Tax incentives and other government economic development policies fall into this category, along with such factors as labor quality, operating costs, competitor locations, and distance to suppliers. Moreover, most businesses

dismiss the importance of such economic development policies on their relocation decisions. A 1989 Grant Thornton survey found that manufacturers ranked state incentives 17th out of 21 factors that companies considered when deciding on locating new facilities (Grant Thornton 1989). And a study of Fortune 500 company plant opening and relocations concluded that state incentives had “little influence on almost all plant location decisions” (Schmenner 1982, 51). In short, state economic development incentives are a minor consideration in most firms’ site selection decisions.

While tax incentives are unlikely to affect a firm’s location decision, they can have a significant detrimental effect on state and local communities’ tax bases. For example, Flat Rock, Michigan and Rio Rancho, New Mexico faced major school funding crises after attracting a Mazda plant for \$49 million in 1992 and attracting an Intel plant for \$114 million in 1994, respectively (Buchholz 1999). Tax incentives are supposed to produce a positive return on the public’s investment as state and local governments gain sufficient revenues from the resulting new jobs and other economic activity to cover the cost of these incentives (Bartik 1990). However, states are not well informed about how willing businesses are to move or how much tax revenue relocations might generate (Burstein and Rolnick 1995). The result is a prisoners’ dilemma where states overbid for firms and end up with fewer jobs and tax revenues than needed to lower their costs (Brace 1993, King 1990). For example, in 1976, Pennsylvania gave Volkswagen a \$71 million package to build a new plant that closed within a decade (Chernow 1976, Mahtesian 1994). In 1991, Minnesota offered Northwest Airlines \$270 million in tax incentives to build a maintenance facility designed to employ up to 2,000 people, but that now employs fewer than 1,000 (Mahtesian 1994). Thus, while theoretically incentives could prove to

be a good investment of public resources, in practice, these generous inducements rarely satisfy cost-benefit analysis (Lynch 1995).

So if economic development tax incentives do not affect firms' site selection decisions and actually undermine state and local governments' fiscal health, why do governors and other state policy-makers continue to offer them? Many policy-makers contend that these incentives are an unfortunate necessity in the economic war between the states for new investment and jobs (Hanson 1993, Noto 1991, Schweke 1999, Wolkoff 1991). States are competing fiercely with each other to improve their economic positions in an era of highly mobile capital, diminished federal funding, and increased international competition (Peterson 1995). A number of organizations encourage this competitive mentality by ranking states on the generosity of their incentives to businesses (Area Development On-Line 1993, Hagstrom and Guskind 1984). These rankings have infiltrated the thinking of corporate America. For example, a 1995 Peat Marwick survey of 203 senior executives found that 73 percent felt that state and local governments were more likely to offer incentives at the time of the survey than five years previously (Peat Marwick 1995). On the other hand, the same survey found that 81 percent of these senior executives felt that these incentives did not give their company a competitive advantage because they believed that all businesses were getting them. The result of this cycle of incentives and increased expectations is that many state policy-makers feel the need to continue these incentives and recruit firms actively or be at a competitive disadvantage in our federal system (Burstein and Rolnick 1995).

Governors, Elections, and Economic Development Policy

Governors have become the focal point of economic development policy-making in the states. In addition to the pressures of interstate competition, the importance of economic conditions for governors' reelection bids gives them incentive to engage in smokestack chasing. Although early studies suggested that gubernatorial elections were largely referenda on the president's economic policy performance (Chubb 1988; Simon 1989), more recent research suggests that voters' evaluations of the state economy have a significant impact on these elections (Atkeson and Partin 1995; Carsey and Wright 1998, Leyden and Borrelli 1995). As a result, governors have taken a more active role in recruiting businesses, promoting economic development, and creating jobs (Fosler 1988). But as discussed above, it is not clear that this increased concern and policy activism has increased governors' ability to shape their states' economic destinies. State economic development policies have negligible or, at best, very modest effects (Lowery and Gray 1992, 1995; Brace 1993).

All this activity with little apparent effect has led some scholars to suggest that industrial recruitment policies are important to governors "as much for symbolic content as for effect" (Wolman 1988). For example, Swanstrom (1985, p. 234) concludes that tax abatement policies are "nothing more than a form of symbolic reassurance, a modern rain dance." Similarly, Burnier (1992) found that most economic development practitioners in Ohio viewed incentives primarily in symbolic or political terms, as allowing elected officials to appear active in promoting economic development and to claim credit for creating jobs. If economic development policies are viewed by elected officials as a symbolic activity designed primarily to

reassure voters, it suggests that these policies should be evaluated for their political, rather than economic, impact.

The idea of evaluating these policies in political terms is consistent with recent research on presidents' attempts to orchestrate economic expansions to coincide with elections. Recent evidence suggests that while presidents are cannot manipulate salient economic outcomes like unemployment, growth, and inflation (Nordaus 1989; Hibbs 1987; Tufte 1978), they can and do attempt to prime the economy by awarding key government contracts prior to the general election and presidential primaries. For example, the Reagan and Bush administrations significantly increased contract spending in certain key states during the 1988 and 1992 elections (Mayer 1991, 202). The timing of these contracts shows that these presidents felt they were an attractive political strategy even though they had minimal economic impact, paralleling the political explanation for governors' industrial recruitment policies. Moreover, their political value is uncertain with Bush winning eight of nine targeted states in 1988, but only two of nine targeted states in 1992 (Mayer 1995). This research demonstrates that executives may be willing to utilize their control of the executive branch to deliver benefits to politically important regions, even if the political and economic value of such activities is uncertain.

Industrial Recruitment as Credit Claiming

This political interpretation of industrial recruitment is akin to credit claiming (Elkin 1987, Wolman 1988). According to Mayhew (1974, 52-3), credit claiming is when elected officials act “to generate a belief in relevant political actors (voters) that one is personally responsible for causing the government, or some unit thereof, to do something that the actor (or actors) consider desirable.” Credit claiming events are particularly valuable when they provide

benefits to a specific geographical constituency and the elected official can reasonably claim to have a hand in allocating them (Mayhew 1974, 54). Groundbreaking ceremonies for new industrial facilities provide prime opportunities for a governor to claim credit for recruiting new firms and jobs to a particular area of the state in a non-partisan fashion.

This political, credit claiming interpretation of economic development policy helps explain why governors ignore policy analysts and academics and continue to engage in industrial recruitment. A governor can plausibly claim credit for his commitment to economic development by recruiting a firm to the state (Bartik 1995). By contrast, a governor can less plausibly claim credit for entrepreneurial strategies. According to Peter Eisinger, "Unfortunately, governors have found it (industrial recruitment) to be an easier strategy than saying, 'I put \$15 million in a high-tech consortium that in 15 years will employ 5,000 people, but right now employs 15 people in little white lab coats. (Mahtesian 1993, 37)'" Furthermore, such long-term effects only appear long after the election subsequent to a governor's decision. This analysis of the relative political value of industrial recruitment and entrepreneurial strategies is at the root of most explanations of elected officials persistence in pursuing the former rather than the latter.

Data on Industrial Recruitment

To test for a political impact of industrial recruitment policies requires data about states' success in attracting or retaining firms. Unfortunately, most states have notoriously poor reporting and procedures in this regard. A recent study of 122 state audits of economic development programs over the past decade concluded that oversight by most development agencies is "primitive" and rare, with development programs being audited every 15 years, on

average (Hinckley and Hsu 2000). According to the former comptroller of New York state, this lax oversight is because “(t)he major players—the business community and, especially elected officials—either do not want to or do not know the costs versus benefits of playing the development game or how to change the game” (Regan 1988, 1).”

I identified seven states with agencies that were able to provide the systematic information on which firms received assistance in a given year, the number of jobs reported being created by the firm (except for Michigan), and the location of these jobs and assistance by county. Each of these agencies also kept track of the relocating firms’ names, their products, an estimate of their number of employees, and where they moved. I was able to gather data on industrial recruitment for 1986-98 in Wisconsin, 1993-97 in Virginia, 1995-2000 in Michigan, 1992-2000 in Indiana, 1993-99 in Maryland, 1995-2000 in North Carolina, and 1994-2000 in Kentucky.

An Economic and Political Model of Site Selection

A successful industrial recruitment is the result of two separate decision-making processes. First, the state government must decide whether to offer inducements. Secondly, the firm must choose where to locate. The literature on firm location decisions suggests that while government incentives have little impact on site selection in general, once firms decide to locate in a particular region, incentives can sometimes tip the scales in favor of one geographically adjacent community over another (Milward and Newman 1989). Since industrial recruiting deals are generally hidden from public scrutiny, it is often possible for a governor to favor certain counties over others on the basis of economic or political criteria.

To explore these potential influences on site selection, I present three distinct models of process: the private model, which suggests that corporate relocations are made entirely on the basis of a firm's needs rather than based on the political or economic concerns of the governor; the public benefit model, which suggests that governors maximize the economic impact of government incentives to business by targeting economically distressed areas; and the political impact model, which suggests that governors use the states' economic development incentives to enhance their electoral own prospects.

The dependent variable in each of these models is the total number of firms that received financial incentives from the state to relocate or expand in a county during a gubernatorial term. Thus, an event count model is the appropriate methodological choice for estimating those models. Specifically, I used a negative binomial regression event count model since it allows the variance to be greater than the mean and it allows me to test whether the events are positively correlated, that is whether getting one firm to move is associated with getting more firms to move (King 1988; Long 1997). A Poisson event count model would require the restrictive assumptions that firm relocations are independent of one another in each county, and that is unlikely under any of my alternative models, of site selection. Table 1 contains the results of the private model, the public benefit model and, the political impact model of site selection, and a combined version.

Table 1 here

According to the private site selection model, corporate relocation decisions are made entirely on the basis of a firm's needs rather than the political or economic concerns of the governor. Previous research suggests that these decisions are based on such factors as labor pools, infrastructure, and being near key customers and suppliers (Barkley and McNamara 1994, Blair and Premus 1987). I model these forces as follows. Education levels are measured by the

percentage of county residents with a high school diploma (education). Each county's relative labor costs are measured as the county's average per capita income divided by the average per capita income for the entire state (income) to assess whether a county has high or low labor costs relative to the rest of the state. The manufacturing environment is measured by dividing the number of manufacturing firms in the county by the average number of manufacturing firms per county for the state (manufacturing) to assess whether a county has a more or less supportive environment for manufacturing than the rest of the state. The population of the county in thousands and dummy variables for each state, excluding Wisconsin, are included as well. All data on education, income, manufacturing firms, voting, and population were compiled from the U.S. Census Bureau's USA Counties (various years) and County Business Patterns (various years).

Firms are thus predicted to be more likely to relocate to counties with skilled work forces (higher education levels), lower labor costs (lower incomes), and a supportive manufacturing environment (more manufacturing firms). The findings in the Private Model in Table 1 are somewhat mixed. On one hand, the coefficient for manufacturing environment is positive and statistically significant, supporting the hypothesis that corporations are more likely to expand or relocate in counties with a supportive manufacturing environment. However, the coefficient for the income variable is also positive and statistically significant, suggesting that firms are more likely to relocate or expand in relatively high cost counties in a state. Finally, the coefficient for the education variable is negative, although not statistically significant. These findings suggest that a supportive manufacturing environment is more important than the relative labor costs of workers in the site selection process of private decision-makers.

The public benefit model of firm locations and expansions predicts that governors target state economic development efforts to maximize their economic impact. As Bartik (1990) notes, the benefits from state incentives are most likely to exceed their costs if they are targeted toward high unemployment or low-income areas so these are the types of counties hypothesized to have the most state-supported business relocations and expansions. To test this hypothesis, I estimated a simple model that tested whether counties with higher unemployment and lower per capita income were more likely to receive state-funded corporate relocations, while controlling for manufacturing environment, population, and individual states. But, as we can see from the Public Benefit Model in Table 1, there is no evidence that states target their economic development efforts to help the most economically distressed counties. In fact, the counties with low income and high unemployment that Bartik (1990, 1995) suggests would be the most cost effective for economic development incentives are statistically less likely to receive state-funded corporate relocations. I also estimated this model with the dependent variable being the number of jobs created (not shown), to see if states steered large job-creating firms to the most economically distressed areas. However, the findings were very similar to those in Table 1 (available from the author). Therefore, since state funded corporate relocations disproportionately go to higher income, lower unemployment areas, governors' industrial recruitment policies are not consistent with the public benefit model of maximizing the economic impact of public investments.

Next, I model state industrial recruitment policy as a function of governors' political goals. One way for governors to reap political gain from industrial incentives is to steer new firms and jobs to politically valuable counties to enhance their electoral prospects. I measure the political value of a county was measured by the governor's vote percentage in the county in the

previous election. The Political Impact Model in Table 1 shows that counties that are politically loyal to a governor (Vote for Governor) are less likely to receive state-funded corporate relocations or expansions. This suggests that governors act strategically to steer firms to increase their support in areas that had previously opposed them.

Finally, I estimated a combined model of state-funded business relocations and expansions incorporating the findings of the Private, Public Benefit, and Political Impact models. The results largely confirm the findings of the three separate models. State-funded business relocations and expansions are more likely to relocate to areas with better manufacturing environments, even if they have relatively high labor costs. Counties with high unemployment and low per capita income are less likely to receive state-funded business relocations and expansions. Finally, these state-funded business relocations are more likely to occur in counties that were less supportive of the governor in the previous election. These findings suggest both the private and political impact models of successful economic development are most credible.

The Short-Term Economic Value of Industrial Recruitment Strategies

While governors may have only limited ability to shape corporate site selection decisions, they may still be able to reap political gains from their economic development actions. Regardless of their long-term impacts, if corporate relocations create jobs, reduce unemployment, or boost income for county residents in the short run, governors can claim credit for the good economic tidings that will be well timed for the next election. While many policy analysts have argued that state industrial recruitment strategies undermine states' long-term economic vitality (Burstein and Rolnick 1995) and may actually worsen income inequality within states (Goss and Phillips 1999), the impact of such policies in the short term is uncertain.

And the relative time frame of elected officials is notoriously short. For governors, an economic development strategy may “work” if its effects are apparent by the next gubernatorial election. Thus, industrial recruitment could be a politically viable short-run economic strategy even if it has minimal or negative economic consequences in the long run. Table 2 presents models that analyze the impact of state-funded corporate relocations and expansions on counties’ job growth, unemployment, and per capita income during the governor’s current term.

Table 2 About Here

The ultimate goal of most economic development policy is jobs (State Policy Reports 1984, Jones and Bachelor 1986). Booming state economies made this goal relatively attainable for most governors in the 1990s, although there was a tremendous range in county job growth and unemployment rates even then. In my dataset, county job growth ranged from a high of 84,811 new jobs from 1995-98 in Oakland, Michigan to a low of Baltimore City, Maryland losing 8,609 jobs during the same years. Similarly, county unemployment rates in my dataset fluctuated from a low of 1.7 percent in Hamilton, Indiana in 1996 to a high of 20.5 percent in Dickenson, Virginia in 1996. The bivariate correlation between job growth and unemployment in my data is $-.272$, which suggests that job growth has only a modest downward impact on unemployment. One explanation for the lack of a stronger correlation here is that most new jobs go to in-migrants rather than local residents (Bartik 1993). Thus, the impact of economic development policies should be measured both in terms of job growth and unemployment rate.

A county’s job growth and unemployment rate are hypothesized to be a function of the educational attainment of its citizens, its manufacturing base, income growth, and the success of a governor’s industrial recruitment policies. I measure education as the percentage of county residents with a high school education. I measure the manufacturing base with two variables, the

number of small manufacturing firms (less than 100 employees) and the number of large manufacturing firms (more than 100 employees). I measure income growth as the change in per capita income during the previous four years. This variable helps to control for differences and changes in productivity among counties. Finally, the success of state industrial recruitment policies is measured as the total number of state-funded business relocations and expansions in each county during a governor's term prior to the next election. This variable assesses the cumulative economic impact of a governor's industrial recruitment policies in each county. I estimate OLS models of the impacts of these factors on job growth and unemployment in Table 2.

The findings in Table 2 suggest that counties with more highly educated people, greater income growth, and more small firms have significantly lower unemployment and greater job creation. State industrial recruitment policies have a more mixed impact on county employment. The Job Growth model suggests that industrial recruitment can have a positive and statistically significant impact on job creation in a county during a governor's four-year tenure. Each newly recruited firm generates 145.7 new jobs in a county over the four-year period. In an alternative model (not shown), I used jobs created by firms in the county instead of the number of recruited firms. The results were similar and suggested that each recruited job creates 1.2 additional jobs. These findings suggest that industrial recruitment can successfully create jobs in the short run.

On the other hand, I find that industrial recruitment policies have no impact on unemployment rates in an election year. The dependent variable in the Unemployment model in Table 2 is county unemployment rate in an election year. The coefficient for the number of firms recruited, while negative, is not statistically significant and is relatively small. Thus, while industrial recruitment may create jobs, it is unlikely to reduce unemployment. This finding is

consistent with Bartik's (1993) assessment that in-migrants take most new jobs created by economic development policies. While industrial recruitment policies allow governors to create new jobs in counties, they do little to reduce a county's unemployment in time for their reelection campaign.

While jobs may be the primary focus of state economic development policy, governors and states are increasingly attempting to increase their citizens' incomes by attracting jobs with higher than average salaries (Atkinson 2000). Increasing per capita income was an easy task for the governors examined here during the economic good times of the 1990s. County per capita income rose by \$2,534 on average during the tenure of governors in my dataset. I hypothesize that the size of the increase in a county's per capita income during a governor's term will be the result of the education of its citizens, its manufacturing base, and the success of the governor's industrial recruitment policies, measured as the total number of state-funded business relocations and expansions during his or her four-year term in the county.

Table 3 about here

Table 3 estimates models of the impact of state industrial recruitment policies on county per capita income growth. In contrast to unemployment rates, I find a strong impact of these policies on the growth of per capita income in my dataset. Industrial recruitment, measured as the number of firms recruited, is estimated to have a statistically significant and positive impact on county per capita incomes. The coefficient suggests that each firm a governor can successfully recruit to a county increases county per capita income an average of \$12.50 over the four-year period. The model also shows that large firms are likely a much larger source of income growth than small firms. In summary, these findings suggest that governors can reap

moderate political gains from short-term economic improvements in counties as a result of their industrial recruitment policies.

While industrial recruitment policies might work in the short run, the results also suggest that alternative economic development strategies may have considerable economic efficiency. The relative impact of improving educational policies on unemployment and income is dramatic. If a governor was able to increase the percentage of high school graduates by only .2 percent, the county is estimated to achieve a greater increase in income and job growth and a reduction in unemployment than attracting a single firm. Increasing the number of small firms through demand-side policies such as incubators or business assistance centers could also have a significant impact on job creation. However, whether governors could plausibly claim credit for the economic outcomes associated with such policies is unknown.

The Electoral Value of Industrial Recruitment

Regardless of its actual economic effects, industrial recruitment may help governors politically through credit claiming and symbolic rather than material effects (Elkin 1987, Cable, Feiock, and Kim 1987, Eisinger 1995). Groundbreaking ceremonies for new facilities enable governors to demonstrate their commitment to promoting the state and a particular region's economy in a non-partisan fashion. In this section I examine whether success in smokestack chasing results directly in increased votes for the governor in a subsequent election, regardless of economic impact. I hypothesize that the more state-funded business relocations occur in a county, and therefore, the more opportunities for the governor to engage in credit claiming, the higher the governor's political support relative to counties that received fewer or no recruited firms.

The dependent variable in the models in Table 4 is the number of votes for the governor in the county in the election at the end of my study period in each state.¹ The independent variables of most interest are the number of state-funded business relocations or expansions into a county and the number of jobs created by those firms during the governor's tenure. A positive coefficient for either variable would suggest that industrial recruitment is rewarded at the ballot box and thus is a politically shrewd economic development strategy. I also included several variables to control for other factors known to affect a governor's vote. First I included variables on county-level economic conditions--income and job growth during the governor's tenure--to assess whether a governor benefits electorally from general economic growth. County population (in thousands) and the normal vote, measured as the average percentage of the county voting for the governor's party in presidential elections in 1980-96, and dummy variables for the states were also included as controls.

Table 4 Here

The results in Table 4 demonstrate that a governor's success in recruiting firms and jobs is not rewarded at the ballot box, and indeed, it may actually be punished there. In all three models, the number of both firms recruited and jobs created had a negative and statistically significant impact on the number of votes the governor received in the election. The coefficients in Model 1 suggest that each firm recruited or expanded costs the governor an average of 118 votes in a county and each job created costs 1.2 votes. In other words, the more firms that received public funds to relocate or expand in a county and the more jobs created by those firms, the worse the governor did in that county in the subsequent election. Recall from Table 1 that companies were most likely to relocate or expand with state subsidies in counties that had supported the governor less strongly in the previous election. Thus, industrial recruitment is

apparently not a good strategy for wooing votes from politically unfriendly counties. In alternative model specifications (not shown), variables were included to see if there was a partisan difference in how voters perceived the appropriateness of smokestack chasing by Democratic or Republican governors. However, there was no statistically significant effect of either independent variable, suggesting that governors of both parties were punished equally by voters for their industrial recruitment successes.

Why are governors who deliver firms and jobs to communities not rewarded politically? It seems unlikely that many citizens are sufficiently conversant of the economic literature on the long-term detrimental effect of industrial recruitment on economic development to have punished governors on this basis. Perhaps a governor's ability to deliver firms and jobs was not very salient politically in the booming economy of the 1990s. It may also be the case that the political benefits to governors of these activities are just not captured in county-level voting data.

These results contribute to the debate over whether gubernatorial elections are best understood as referenda on the president or as a retrospective evaluation of gubernatorial performance. An influential early analysis of aggregate state election results found no relationship between state economic conditions and gubernatorial elections (Chubb 1988). But more recently, scholars have found that unemployment and per capita income can have a significant impact on voters' choices for governor, thus bolstering claims that voters use retrospective, state-level criteria in their gubernatorial voting decisions (Atkeson and Partin 1995; Carsey and Wright 1998; Leyden and Borrelli 1995). Prior to this study, no analysis has looked at the impact of county-level economic conditions on aggregate vote outcomes. As I have shown, there is significant intra-state variation in economic conditions. My county-level analyses support the retrospective model of vote choice. Income and job growth are closely

associated with more votes for the governor at the county level. In alternative specifications of this model (not shown), unemployment rates were substituted for job growth. The coefficient for this variable was in the correct direction, but did not quite approach standard levels of statistical significance.

Conclusions

As a political strategy, I find that the impact of industrial recruitment, or smokestack chasing, is mixed. On one hand, governors are able to target state funded grants, loans, and tax incentives to steer firms strategically to counties where their support was lower in the previous election. Moreover, such industrial recruitments increase job growth and per capita income in these counties. However, these industrial recruitment successes do not translate into increased votes for governors. The conventional wisdom posits that firm recruitments and expansions provide valuable credit-claiming opportunities for governors demonstrating their effectiveness as a jobs rainmaker and commitment to a particular county. But my empirical results suggest that the more firms that are relocated to a county and the more jobs that are created, the worse the governor does in the subsequent election.

My results suggest at least two avenues for further research into the relationship between gubernatorial economic development activities and election outcomes. First, although the seven states in my sample represent a good mix of governors by partisanship and aggressiveness in industrial recruitment, a study of a broader range of states would test the generalizability of my conclusions. Second, the lack of an electoral return from industrial recruitment in my results may be due to the economic good times of the study period. Unemployment and income growth

during these years were very favorable. During slower economic times, the political payoff for governors from attracting firms to a state may be higher (Grady 1988). Again, further research with a different study period would test my results' generalizability.

My results raise fresh doubts about even the political value of state economic development strategies that involve offering large public tax subsidies to encourage firms to relocate to or expand within a state. In addition to their being an economically inefficient economic development strategy (Buchholz 1999, Burstein and Rolnick 1995, Corporation for Economic Development 1994, Lynch 1996), these policies offer little in the way of political returns to governors. These findings should further embolden analysts and critics to challenge the presumed political advantages of short-term economic development strategies like industrial recruitment relative to the potentially greater long-term economic payoff of alternative, supply-side, economic development strategies.

The disjuncture between the theory and practice of economic development policy is often attributed to uncertainty about the impact of incentives and other strategies. In the context of such uncertainty, the rational strategy for governors is to "shoot at everything that flies, claim everything that falls" (Rubin 1988; p 236, Wolman 1996). In other words, while governors may realize that incentives for firms may be poor economic policy, they seem to believe that they satisfy their political need to do something to address voters' concerns. However, my analysis demonstrates that success at recruiting firms does not translate into political support at election time. In other words, smokestack chasing is neither a sound long-term economic strategy nor a sound short run political one.

Endnotes

I am grateful for the invaluable editorial comments of Chris Mooney, the methodological assistance of Michele Claibourn, the data collection efforts of Jason Delisle and Rachel Burrows, and the suggestions of the three anonymous reviewers. Kate Imbach, Chris DeLucia, Katey Jessen, Erica Baggett, and Ken Hardy of Skidmore College provided other assistance.

1. In alternative specifications of the model, I used the change in the number of votes for governor from the previous election, the change in the percent vote for governor from the previous election, and percent vote for governor as the dependent variable. In all models, the number of recruited firms and jobs created had a negative impact on the governor's electoral performance although the fit of the model was relatively small in each case. The results are available from the author.

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