Chapter 7: The Race to the Top in Environmental Protection

This chapter and the next explore the implications of the homevoter hypothesis for local efforts to promote and protect the environment. The dominant view by social scientists is that local governments are inadequate to this task. Indeed, a large fraction of commentary suggests that local governments make the problem worse by selling their environmental patrimony for a mess of pottage or, worse, despoiling their neighbors in pursuit of localized fiscal or employment gains.

I argue that this pessimistic view is wrong both in theory and in practice. Because homeowners are such important players in municipal affairs, and because their assets would be devalued by adverse environmental effects, local governments are apt to err on the side of caution in admitting industry. Concern about their property values more likely fuels a “race to the top” among local governments.

7-1 Homevoter “NIMBYism” Promotes Municipal Caution

It has long been an article of faith among environmental policymakers that local governments should not be entrusted with any but the most inconsequential decisions about environmental protection. Anti-localism emerges from a widespread belief that competition among jurisdictions poses a danger of a mutually destructive “race to the bottom.” As Dan Esty, a leading commentator on environmental politics, points out, “Fears of a welfare-reducing race to the bottom represent one of the central underpinnings of federal environmental regulation in the United States” (1996, p. 628).

The story goes something like this. Local officials are always eager to lower taxes and promote jobs by attracting industry. But because there are many other communities eager for industrial development, the owners of an unusually large business can demand concessions in return for settling into their tax-cow and job-creator status. (I say “unusually large” to cover both monopolists and large-but-competitive firms that seek locations episodically. If all businesses were small and their entry continuous, their competition among themselves for sites would undermine their ability to extract special concessions from officials.) In the large-firm scenario, businesses may insist on exceptions to reasonable environmental rules. And though local officials would normally be loathe to grant such concessions, the possibility that another jurisdiction might get the plant induces them to cave in and give away the store.
Although this is sometimes described as an example of game theory’s “prisoners’ dilemma,” the usual story is just local officials who respond to the fact that the firm has alternative sites and can go there if the community’s taxes or regulations are not satisfactory. I will explore the more sophisticated, prisoners’ dilemma version of this story, in which the polluting industry threatens to locate right next door, in the next chapter. I start with this bald complaint about competition because it is so often invoked. It is apparently the foundation for the nationalization of American environmental policy (Esty 1996, p. 593).

The contrary story is based on the dominance of homeowners in local politics. An owner-occupied home is the largest asset most people own, and owners cannot insure it against devaluation by neighborhood effects. As I argued in section 1-5 of this book, this fact goes a long way to account for NIMBYism — the “Not In My Back Yard” reaction to land use changes. NIMBYism is not occasioned solely by episodic events such as the selection of site for waste dumps. The risk-aversion that gives rise to it pervades all of local political decisions, and it thus makes local governments the least likely candidates for a “race to the bottom” of the environmental ladder.

Even if the homeowner does not care about local air quality, traffic, and noise from industrial development, she knows that prospective buyers of her house do care about it. If she has any say about the prospective plant’s location — and she certainly does at numerous local public hearings at which the plans can be examined — she will fight the development unless its owners offer something that offsets its costs to her. If these promises can be made and enforced without excessive administrative costs, the provision of localized environments will be at a level more consistent with society's goals (which include provision of other goods besides amenable environments) than a more centralized system could accomplish.

7-2 The Oates-Schwab Baseline Informs the Debate

There has been a lively debate in law journals about the race to the bottom. Daniel Esty (1996) articulates the pessimistic view that localities are not to be trusted. Richard Revesz (1992; 1997) presents the contrary, more optimistic view, but it is not based on the idea of capitalization or homevoter influence, at least not directly. His argument is that government officials who are enticed by the tax and employment benefits of would-be polluters are pressured by another side. Their constituents care about local environmental quality as well as jobs. If public officials are
attentive to their citizens' demands for both goods — those purchasable by having good jobs and those available by having a pleasant environment — there is no reason to suppose that competition among jurisdictions will result in a “race to the bottom” of the environmental quality spectrum.

The touchstone of Revesz's analysis and of his critics is an article by Wallace Oates and Robert Schwab (1988). They developed a theoretical model that fits the stylized facts of the “race to the bottom” scenario. The model supposed numerous jurisdictions among which capital — the job provider — was perfectly mobile. But the residents of these jurisdictions were perfectly immobile, at least among jurisdictions. The usual competitive economic assumptions otherwise applied: No single jurisdiction or firm could by itself affect the conditions of supply or manipulate demand.

The novelty that Oates and Schwab introduced was a model of political decision-making. Elected officials were presumed to be able to allow firms in or to deny them access to the jurisdiction. Allowing firms to enter degraded the environment but raised their constituents' wages. In addition, local officials had to raise taxes for other local public services, and they could tax the income of residents (immobile labor) or businesses (mobile capital) or both.

As is usual for normative models like theirs, Oates and Schwab worked out an “optimal” solution — one that maximized the joint value of environment, private goods (provided by wages) and public goods (provided by taxes) — and compared it to what a competitive model would produce, given their assumptions. Their key assumption involved the behavior of the public officials. If the public officials were faithful representatives of the median voter, and if voters within each jurisdiction did not differ in their preferences for the environment and other goods, then the competitive model and the optimal solution was the same. There was neither a “race to the bottom” nor a “race to the top” in their median-voter, homogenous-community baseline.

Optimality in their model did not mean that environmental quality was at its maximum. To do that might require excluding all businesses from all jurisdictions, and that would result in low wages and output of other goods. (This is why “race to top” and “race to bottom” can be misleading terms — they beg the question, top or bottom of what?) The optimum that was achieved in the Oates-Schwab baseline was one in which citizens of each jurisdiction got the mix
of environmental quality and other goods that matched their personal demands. The “top” in this instance was the constrained maximum of a utility function of a representative resident (since all are the same) in which environment and other goods are both arguments.

What was avoided was a scenario in which each jurisdiction went too far in the job-creating direction and thus sacrificed too much environmental quality. The discipline on public officials was the electoral apparatus that made them highly responsive to voters. If officials let in too few firms, the voters turn them out and elect the more prodevelopment types. If the latter go too far, the public elects environmentalists to chase polluters and their job-creating capital away. (There are no irreversible situations in these models, so my heuristic of a back-and-forth politics does not affect the ultimate outcome.)

7-3 Bureaucrats and Factionalism Upset the Baseline

Commentators have deployed the Oates-Schwab article to support their contention that a race to the bottom is unlikely (Richard Revesz 1992), or they have displayed its extreme-sounding assumptions to argue that the anxiety is justified (Daniel Esty 1996). Oates and Schwab, however, used their optimistic result mainly as a starting point for exploring situations in which the optimal outcome might not obtain. One way in which the political market (competition among jurisdictions) might fail, they supposed, was that a government might be dominated by bureaucrats who sought to maximize tax revenues and thereby feather their own nests. Here is how.

One of the seeming oddities of the Oates-Schwab optimal baseline is that business capital is not taxed at all. This is, however, a standard result in economics that follows from capital's perfect mobility. You don't want to tax things that can easily run away from the taxman. In their bureaucratic variation on the model, Oates and Schwab supposed that elected officials might try to extract taxes from skittish capital by bribing its owners with exceptions to environmental regulations. This lust for tax revenue does not serve the interests of the voters, who prefer a better environment to the tax revenue, but they are assumed in the bureaucratic model to have no clout. The bureaucrats want the taxes to expand the scope of government, a goal not necessarily shared by the voters. So disfranchised voters get stuck with more pollution than they would like in that model.
I once heard Aaron Wildavsky, the late dean of Berkeley’s public policy school and one of the most astute observers of American political economy, say that the bureaucratic model did not describe American politics especially well. The useful models were, if I remember him right, the median voter and the pluralistic or interest-group model of politics. The pluralistic model assumes that people are organized by interest groups, and politics consists of politicians trying to win elections by serving a dominant group's interests. Even where bureaucrats do seem important, my own view is that their goals seem much wider than budget maximization. The U.S. Environmental Protection Agency could increase its budget if it were required to compensate landowners burdened by their regulations, but I have never encountered any evidence that the EPA favored Congress's proposed “just compensation” bills for that or any other reason.

So the more interesting (to me) variation that Oates and Schwab proposed was one in which interest groups determined political outcomes. Dropping the assumption that all voters have the same interests, Oates and Schwab supposed that the voters were divided into workers, who gained from jobs, and other residents, who either had no jobs (and no relationship with the workers) or had jobs that did not depend on the amount of capital in their jurisdiction. I'll call the first group the “six-packs” and the second the “white-wines,” in honor of the stereotypical beverage of choice of each group. If this rigid division of interests cannot be overcome by intrajurisdictional log-rolling or by side payments, then one faction or the other might seek to alter the efficient result.

Note that this model could be interpreted as an interest group model, as I have done here, or a median-voter model in which there are simply differences in between the immobile majority and immobile minority's preferences within the jurisdiction. The difference is that in an interest-group model, strength of preference — manifested perhaps by monetary contributions to politicians — might allow a minority to prevail over the majority, which never happens in the median-voter model.

If my “six-packs” were the dominant interest group, they could increase their wages by lowering environmental standards. This might be profitable for six-packs because the state can subsidize firms to enter the jurisdiction by using some of the taxes that are imposed on the white-wines. (Thus the real source of exploitation is the ability to tax people who do not share your preferences.) This would raise the wages of six-packs enough to compensate them (but not the white-wines, whose incomes don’t depend on local capital) for reduced environmental quality.
Likewise, if the white-wines were dominant, they might impose environmental standards that were too high, since white-wines care nothing for local jobs. In this latter case, the result would be that environment would be “too good” as a result of too little capital in some jurisdictions.

7-4 Pittsburgh’s Business-Driven Race from the Bottom

A critical assumption in the Oates-Schwab model is often neglected by those who invoke it. Oates and Schwab assume each jurisdiction is large enough to internalize employment benefits. Thus they are talking about states or a largely mythical (in the U.S.) metropolitan government. Their model does not track the situation of American local governments, and Oates and Schwab (1988, p. 351) explicitly deny that their model follows Tiebout in this respect. Local governments are usually too small to internalize employment benefits sufficiently, and, anyway, the Oates-Schwab model assumes that residents of each jurisdiction cannot migrate, Tiebout style, to states that match their preferences. Only “voice” is allowed to select environmental quality.

The neglect of local government in the debate about the race to the bottom is in one sense understandable. Much of the policy debate about “environmental federalism” considers the alternative to national standard-setting to be devolution to the states. The primary criticisms of state standard-setting roughly tracks the Oates-Schwab scenario in which employment and business interests (my “six-packs”) triumph over environmental interests.

I will presently argue that the more appropriate model for local environmental competition is one in which NIMBYish homeowners are dominant. But even if it were true that local politics were dominated by business interests, would it follow that environmental quality would be entirely discounted? The following example shows that politicians who are attentive mainly to employment interests nonetheless have an incentive to pay attention to environmental quality. I want to emphasize, however, that it varies the assumptions of the Oates-Schwab model in an important but, I think, realistic way. Instead of only capital being mobile, I assume that capital and at least some key components of labor (in this case, managers) are mobile between regions.

Air pollution from the burning of coal for industry, transportation, and home heating was a pervasive problem in late nineteenth and early twentieth century cities. American city governments were keenly aware of the problem and attempted to regulate coal smoke since at least 1880 (Robert Grinder 1980). In most cases, successful regulation involved inducing
businesses and households to switch from smoky bituminous coal to clean-burning anthracite coal or even cleaner natural gas.

The city whose struggle with smoke was greatest was Pittsburgh (Grinder 1978). Its steel mills depended on coke made from bituminous coal, and the railroad trains and tugboats that transported its raw materials and its finished product also used bituminous coal. Anthracite was costly to ship from the eastern part of the state and, in any case, made poor fuel for the steel industry’s blast furnaces. As a result, Pittsburgh had some of the most wretched air quality of any city in the nation as it approached the midpoint of the twentieth century, when most other large cities had cleaned up their most visible air pollution.

The cleanup of Pittsburgh's air was not induced by the federal government. President Truman declared that pollution was a local problem and was unwilling to promote legislation to help (Charles Jones 1975, p. 30). The Pennsylvania state legislature likewise did not initiate smoke-control legislation, but it did respond to regional concerns once the city had decided to act so as to get the many suburbs of Pittsburgh on board (Roy Lubove 1969). Nor, I must concede, were local homeowners the source of political organization to combat smoke.

Instead, it was business leaders, including steel-company executives, who finally decided something had to be done about Pittsburgh's smoke. And the reason was simple: Their companies were finding it increasingly difficult to get executives to relocate to Pittsburgh (Lubove 1969, p. 107). The area's smoky reputation repelled at least managerial workers. Smoke abatement was driven by the fact that Pittsburgh firms had to hire in a national job market, and the market was telling the city to clean up its act. Even U.S. Steel, the region's major employer, was considering relocating its headquarters to another region because of its difficulties in getting managers to move to Pittsburgh (Michael Weber 1988, p. 203).

Pause for a moment and contemplate the ironies of U.S. Steel, the world's largest steelmaker at the time, threatening to remove its headquarters from Pittsburgh because there was too much smoke. The most obvious is that U.S. Steel was itself a major polluter. But because it wasn’t the only polluter, it did face a collective-goods problem. Other firms over which it had no direct control also contributed mightily to pollution. U.S. Steel would surely have been put at a competitive disadvantage and fallen short its goal of making the city more attractive to prospective employees had only it cleaned up its act. Thus collective action had to be taken, and
industry leaders joined with local and state officials to overcome the potential for free-riding within their midst.

The other irony, more important in my mind, is that U.S. Steel's threat to relocate, and indeed the whole business community’s motivation for the cleanup, turns the conventional “race to the bottom” scenario on its head. The business people in Pittsburgh were contemplating relocation not because Pittsburgh's embryonic environmental regulations were too strict, as the usual race-to-the-bottom story has it, but because they were not strict enough. Faced with excessively dirty air, Pittsburgh business people contemplated moving to more environmentally friendly jurisdictions. All of the smoke-abatement articles mentioned that Pittsburghers held rival St. Louis's successful smoke abatement as a paradigm for them to emulate. Nor was Pittsburgh’s situation unique. Boston’s mayor was similarly goaded into action in 1940 by the threat of major taxpayers moving out of the city because of excessive smoke (Lloyd Briggs 1941, p. 4). The intermetropolitan race was toward the top of the environmental ladder, not to the bottom.

Why were homeowners not part of the smoke-control story, even though they bore a great deal of the cost of smoke pollution? Part of their ineffectiveness before 1920 might have been that women, whose interest in the home was most direct at the time, did not have the vote. In describing Chicago’s failed attempt to reduce smoke in the 1890s, Christine Rosen (1995) mentions that women's clubs in Chicago did lobby for smoke abatement, but they never had a chair at the policymaking table. But even in 1940s Pittsburgh, more than two decades after women got the vote, homeowner interests played no mentionable role. And this should not be too surprising. Air pollution does affect home values, but pollution sources are often outside of the municipality’s jurisdiction.

In the balance of the chapter, I will argue that homeowner concerns are effective in controlling pollution emanating from within their jurisdiction. The smoke abatement example shows that homeowners are not likely to be effective for more pervasive environmental issues. Pittsburgh’s story, however, challenges, the idea that employment interests are uninterested in pollution issues. Those advertisements in which oil companies depict themselves as friends of the environment might not be just spin. Better environments make it cheaper to get workers to move to regions where they operate.
Fiscal Benefits, Not Jobs, Persuade Suburban Homevoters

In most metropolitan areas, the majority of residents work in a community other than where their residence is located. The problem faced by commercial and industrial developers is how to get homevoters in any jurisdiction within a metropolitan area interested in job creation. A new factory in one jurisdiction usually has a beneficial spillover: It creates jobs for people who live in other jurisdictions. To be more precise, a new employer raises regional wages (not just in one jurisdiction) by adding to the demand for labor in a setting in which labor supply is not perfectly elastic and by adding to regional agglomeration economies (Ciccone and Hall 1996). If a single jurisdiction encompassed the entire labor market, we would expect its officials to take account of this benefit. But such metropolitan-area governments are rare, and, because of their size, they would have other drawbacks, such as being prone to interest-group manipulation.

Dealing with employment spillovers in a fragmented metropolitan area is not a problem if another assumption, one that is more reasonably precluded in the Oates-Schwab statewide model, can be invoked in the local context. Because the number of voters is relatively small in municipalities, it is possible for prospective firms to compensate residents for enduring the local spillovers that cannot profitably be internalized within the boundaries of the firm's property. This idea was the basis for my 1973 doctoral dissertation (Fischel 1975).

I modified the Tiebout model to include firms that wanted to locate in the residential communities. Firms could shop around the numerous municipalities. Residents of these communities were already ensconced and had to be satisfied that the firms' location decisions would not make them worse off. Communities were deemed able to exclude firms by zoning, which implied that they could change the zoning to allow the firms to enter if it seemed worthwhile. As William Oakland (1978) put it, my theory viewed communities as suppliers of commercial and industrial sites by virtue of their ability to establish and modify zoning regulations. The suppliers (the homevoters) do not like the disamenities of businesses, but residents could be persuaded to accept them if property taxes paid by the firms (in excess of services required) were large enough.

In the localized setting that I proposed in my dissertation, the property taxes and development exactions paid by businesses to local governments amount to a local “pollution tax.” This seems like a strong statement. Pollution taxes are the holy grail from which economists have vainly
sought to persuade state and national policymakers to drink. But in a world in which firms are mobile and local governments do tax them, at least some of those revenues should be viewed as compensation for the adverse effects that those firms have on the resident-voters in the community.

The city of Linden, New Jersey, provides an unusually explicit example of such balancing. Its city council agreed to accept a transfer station for New York City’s municipal waste (New York Times, May 25, 2000). The garbage would be received from barges and then transferred to rail cars to be shipped to landfills in other states. The Linden city council readily agreed to accept it because the transfer station would be on derelict industrial land, far from any residential areas, and New York would pay Linden more than $4 million per year in extra property taxes and local fees. (Other industrial cities nearby had rejected New York’s proposals because the proposed sites were too close to residential areas.) The mayor of a neighboring city, whose residents worried that the increased train traffic from Linden’s transfer station would devalue their rail-side homes, asked rhetorically, “Is Linden ready to be called the garbage capital of the world….? Have they thought about what it would do to their real-estate values?” To which Linden’s mayor responded by asserting that “the garbage port might even increase real estate values by keeping taxes down.”

7-6 Communities Balance Taxes and Environmental Costs

The rational balancing of local amenities against business side payments (property taxes plus impact fees) that I took for granted is often overlooked in academic writing about industrial location. Community goals are instead often characterized by rules of thumb such as “minimizing taxes” or the slightly more sophisticated “maximizing fiscal dividends” (Michelle White 1975). The latter supposes that communities seek to attract the firms whose contribution to local revenues exceeds the cost of providing services for the firms by the greatest amount. But these goals are not rational as long-run propositions.

Communities can minimize taxes by not spending anything on local services, but that would irrationally reduce home values in most places. Maximizing fiscal dividends neglects that an excess of revenues over expenditures might nonetheless reduce home values if the wrong types of businesses, such as heavy polluters, are permitted too close to homes. In New Jersey, a proposed low-level nuclear waste storage facility that promised a host community a fiscal
dividend of $2 million a year for fifty years found no takers among the state's 567 municipalities. (This was described in section 1-3 above). I do not regard the municipalities that spurned the money as irrational. The reputation effects of having the facility could have devalued home values by more than the offsetting benefits would have increased them.

To test my balancing theory, I examined the determinants of housing-value in a 1970 sample of Bergen County, New Jersey, municipalities. Bergen County has 70 municipalities packed into a relatively small area next to New York City, so it surely looks like the ideal sample for the “race to the bottom” to happen. My results indicated that that commercial and industrial tax base by itself conferred neither a large gain nor a large loss on median home values in the communities (Fischel 1975, p. 162). That is, there was no statistically significant capitalization, positive or negative, of the percent of property values accounted for by commerce and industry. James Burnell (1985) and William Oakland and William Testa (1998, p. 211) came to the same conclusion in analyzing business location in Chicago-area suburbs.

This is what one would expect in a competitive market. Businesses that paid a lot of taxes without producing much adverse neighborhood effects would get favorable treatment — tax breaks or special services — in many communities, so the net benefits of having them would not be so large as to raise home values. Firms that raise NIMBY anxieties or that demand additional local services would have to pay more in property taxes and side payments to communities that valued such revenues more than the disamenities of the firms. A real polluter would have to pay a lot to offset its deleterious effects on homes in the community.

Lack of capitalization of firms’ presence in my regression seems inconsistent with my previous claim that good things and bad things are reflected (capitalized in) housing prices. If nearby traffic from industry lowers housing values and good schools that the industry pays for raise values, how is it that I find no effect? The reason is that I tested solely for the effect of the presence of the firms in the community. Had I looked only at school spending (subsidized by the firms), the effect on home values would be positive. Had I looked only at traffic and noise that were increased by the presence of industry, the effect would have been negative. My theory is that these effects cancel one another out on average, so that in the end industry conveys neither a windfall nor a wipeout (at the sample mean) for the residents of the host communities.
I concede that some business tax-payments do seem like windfalls to the community. Property taxes from some nonresidential uses surely do more than simply offset the environmental disamenities and higher cost of services (police and fire protection). Vacation homes and resorts in rural communities are perhaps the most common examples, though one wonders whether the year-rounders would put up with the seasonal visitors if their cottages and chalets did not help pay for the schools. But occasional windfalls from business location are consistent with the lack of capitalization in econometric studies of a large sample of communities, whose estimates are for the mean value of the sample. The windfalls to some may be offset by wipeouts in other communities from firms that turned out to be more problematical than expected.

7-7 Industrial Uses Lower Residential Tax prices

The reader might wonder, isn’t it a bit sad that there is so little capitalization of business property in home values? All that competition for business, but no gain to homeowners. The answer is that there are gains to homeowners from this process, just not at the margin. For example, hedonic price regressions — the type generally used in capitalization studies — usually find that the value that an extra bathroom contributes to the average home’s value is an amount just about equal to the cost of building an extra bathroom. That does not mean that the bathrooms that are already in the home add the same value — try selling a home without a bathroom!

For the same reason, an individual community that starts out with no industry might eagerly seek it. The effects of a small industrial park on residential ambiance may be inconsequential and the benefit of having another taxpayer to help pay for schools could be relatively large. But after the industrial park is full, the net benefit of establishing another one might not be so large, since the next-best site might have more adverse spillover effects on nearby homes. Thus in equilibrium, marginal (tax) benefit will equal marginal (environmental) cost for an additional industrial firm. But that does not mean that removing the first industrial park would be a matter of indifference to community residents.

My conclusion about local taxes on business in my model is, incidentally, the same as the Oates-Schwab result. They found that taxes on capital (business) should be zero, since capital is the mobile factor. In my model, the taxes that businesses pay are not truly on capital, but arise only because their activity gives rise to some offenses to residents that the businesses cannot
profitably eliminate and because they generate a need for extra municipal services. The taxes paid are for benefits received, and, on average, no more.

A second, more important problem with nonresidential property arises if the sole means by which it compensates homeowners for its disamenities is through the property tax. If this were the case, the apparently lower “tax price” — the lower cost of local services perceived by the median voter when businesses are paying much of the bill — might cause “too much” local public expenditure. If homeowners see that businesses will pay 30 percent of local taxes, the price of getting local services looks to the median voter as if it is only 70 percent of its true cost.

The low tax price created by commercial development is the product of one of the institutional constraints on municipal opportunism that I discussed in section 2-4 above. The “public purpose” doctrine prevents municipalities from simply negotiating a cash settlement with commercial developers, in which those seeking permission to locate in the community simply offer cash for it, with the proceeds to be distributed to residents.

Although I made this distortion and its resolution a major part of my earlier work (Fischel 1975), I have since concluded that the tax price distortion is not important for municipalities. Local governments have plenty of ways besides the property tax to extract side payments from prospective firms. Exactions and impact fees are only the most obvious means of charging new development (Altshuler and Gómez-Ibáñez 1993). Such side payments are essentially like cash to the median voter, and for that reason they do not distort local decisions. Moreover, municipalities have multiple means by which to spend largesse from the public sector. Cities with extremely low tax prices, such as Commerce, California, have found not-too-subtle ways of converting public spending into perfectly legal, above-board private expenditures. These cities provide services for residents, such as vacation camps, that are essentially private goods.

School districts, as opposed to municipalities, are more subject to the tax price distortion. Exactions pay only a small fraction of their costs, and school districts have less opportunity to convert public sector money into private expenditures. As I suggested in section 6-5 above, this “inefficiency” is hardly a catastrophe. Indeed, it is one way by which lower-income people can obtain high-expenditure schools, since higher-income communities are usually even more skittish about accepting nonresidential land uses that create the “problem” of too much school spending.
Several other researchers added to my modest statistical evidence for the rationality of the trade-off between environmental amenities and tax revenue. Instead of testing for variation in property values, they looked at the other side of the transaction, location decisions by business. A necessary implication of my theory is that, in choosing communities in which to locate, businesses respond to the net burden of taxes and local regulation.

Businesses like low taxes, but they also need land that is zoned to accommodate them. Before scholars paid attention to the zoning constraint, however, it was difficult to see much relationship between taxes and business location (William Oakland 1978; Newman and Sullivan 1988). The earlier studies were inconclusive, I submit, because they overlooked that firms cannot get into the low-tax places to which we would expect them to gravitate unless they can pass environmental muster.

William Fox, who developed a theory of business location parallel to mine, examined the location patterns of industry among Cleveland’s suburbs (Fox 1981). He found that higher-income communities tended to zone out industrial uses entirely. Whether such communities had high or low tax rates did not matter to prospective firms — these suburbs did not want the businesses anyway.

Once Fox cleared his sample of communities that made no accommodation (via zoning) for industry, he found that having lower local taxes did attract firms. Results consistent with Fox’s were obtained by Erickson and Wollover (1987) and Warren McHone (1986). These studies imply that many communities deliberately forgo industrial development and keep their residential taxes high because they do not want to suffer the adverse environmental effects. They are interested in home values, not just fiscal benefits.

It has long been this way. Jon Teaford’s histories of American local government describe as many instances of cities incorporating to deter business and industry as to attract it (1979, p. 84; 1997, p. 17). Some communities — usually not the most affluent — eagerly annexed territory on which commerce and industry either were already located or could easily be located without much annoyance to homeowners. The “industrial park” was born and acquired its oxymoronic name during the post-World War II period (1997, p. 52).
As Teaford describes it, intermunicipal competition for industry was hardly an environmental “race to the bottom.” Homeowning residents had to be well insulated from industry, and plenty of other communities used their zoning and annexation powers to prevent the development of commerce and industry too near to their homes, deliberately forgoing the fiscal benefits in order to preserve the local environmental benefits. The communities that do get the firms must be getting fiscal compensation that offsets their disamenities. In other words, at least some part of firms' local property taxes are pollution taxes.

An implication that follows from this view is that fiscal competition for property tax base is not wasteful. Many otherwise sensible economists condemn fiscal competition because it supposedly distorts the choice of location of businesses, inducing them not to choose the least costly area in which to operate. The Federal Reserve Bank of Minnesota has actually gone on record to denounce this activity (Burstein and Rolnick 1995), and there are proposals to have Congress or even the federal courts intervene to limit competition for business among states and cities (Peter Enrich 1996).

None of these proposals to limit competition considers the preferences of local homeowners and other residents for jobs, tax base, or environmental quality. It may be true, for example that the “least costly” location for a shopping center is in the midst of a high-income residential area because that will minimize trips by potential shoppers. But that calculation of cost ignores the adverse effect that the shopping center has on the nearby residents, and it ignores that some other communities might be more willing to accept such spillovers in return for the shopping center’s fiscal benefits.

To take another common example, residents of a large city that has lost industry might in fact be willing to trade the full loaf of tax benefits for a half-loaf of some tax benefits plus employment opportunities. The resulting tax breaks that the city gives to attract and retain industry may look like a giveaway, but the value of the city’s residential property may still rise because prospective workers will want to move there. Only if residents of all places have the same demands for employment, fiscal, and environmental conditions can it be said that exchanging one benefit for another is an example of wasteful competition.
7-9 An Aside on the Unfairness of Tax Base Sharing

In the previous chapter, I described the school-finance reform movement's attack on differences in property tax bases among communities. Coons, Clune, and Sugarman (1970) argued that unequal local property-tax bases were unfair because one community could pay for schools at a lower tax rate than another. At least sixteen state courts, beginning with Serrano v. Priest (Cal. 1971), have overturned their school-finance systems at least in part for this reason. Nor is the desire to share tax bases advocated solely by attorneys. Economists Helen Ladd and Edward Harris (1995) argue for removing commercial and industrial property from local taxation and having the state tax it for all districts' benefit.

My criticism of these claims in sections 6-3 and 6-4 focused on two phenomena. One was that “property-rich” school districts were often populated by “income poor” people who had settled in commercial and industrial areas or deliberately invited such development. Equalization of tax bases would as often harm the poor as benefit them. My other criticism was the differences in tax base are reflected in home values, so that the residents of property-rich places have to pay in advance for the privilege of lower taxes or better schools. My claim in this chapter adds a third criticism to tax base sharing. It penalizes communities that accepted industry in the past only on the understanding that this industry would be fiscally profitable. Here is an example.

When Vermont and New Hampshire were recently compelled by their state supreme courts to level fiscal differences among school districts due to differences in local tax bases, governors of both states sought to exclude from tax base sharing the towns that had nuclear power plants. (Each state has one: Vernon, Vermont, and Seabrook, New Hampshire.) Both governors pointed out that it would be unfair to redistribute the enormous tax base that these towns had acquired. No other town or city had been willing to accept a nuclear plant, which, when they were planned, were regarded as a necessary response to the region's extremely high electricity costs. “Recapturing” their tax base would in effect renege on a deal and leave both communities to endure an otherwise unwanted neighbor without compensation.

My theory simply extends the governors' view to all nonresidential uses. Some nonresidential uses may be more benign than others, but few can be thought of as having no disruptive effects on the residential character of communities. Tax base equalization from this viewpoint is not
simply taking a windfall away. It is leaving “property-rich” communities worse off than they
would have been had they not accommodated the commercial and industrial development.

Tax base sharing also complicates future attempts to locate problematical land uses, although
this seems less important for individual communities because land-use exactions can be
substituted to compensate the host community. Even if this works out, however, new firms end
up paying an additional tax to the state or regional government. The additional tax has
deadweight loss because it is not tied to the “benefit” of being allowed into the community.
States or regions that adopt tax base sharing may end up being less attractive to business (Fischel
1976). Even if many firms are not deterred, evidence shows that the burden of statewide taxes on
businesses is rapidly shifted back to workers in the form of reduced wages (Feldstein and Wrobel
1998).

7-10 Cities Cannot Be Forced to Take Industry

An important environmental problem has been how to find homes for a region’s “necessary
 nuisances” in an era of heightened environmental awareness. If the detritus of society can no
 longer be dropped anywhere (if it ever could), new sites for both hazardous and ordinary
 (“municipal” in the trade) wastes must be developed. The problem is where to locate these
 necessary nuisances, whose ubiquity has spawned another acronym: LULU (“locally unwanted
 land use”). NIMBYs don't want LULUs.

Attempts in the 1970s and 1980s to site LULUs such as dumps employed top-down tactics. Many
 states adopted “preemption” laws that permit the state government to override local
 opposition to such sites. The right of the state to do this is usually clear, as courts everywhere
 continue to recite the mantra — true in texts, dubious in practice — that local governments are
 “creatures of the state.”

Kent Portney, who studied attempts to locate unpopular land uses in Massachusetts, observes
 that it is “very difficult, if not impossible, to pre-empt local authority in practice” (1991, p. 51).
The reason is that the local interests get themselves on state commissions and manage to scuttle
 the idea. Lawrence Susskind and Stephen Cassella (1987) reviewed the attempt by California to
 pre-empt local opposition in order to locate a liquid natural gas facility along the Pacific coast.
 Despite the vigorous promotion of the LNG facility by Governor Jerry Brown, it was never built.
The state's heavy-handed attempt made local opponents dig in their heels. Michael Gerrard, an
attorney whose national clientele includes commercial hazardous-waste facilities, states flatly that preemption of local government “never works” (1994, p. 170).

Studies of hazardous waste-siting activities sometimes point out that the state had offered the communities compensation, but that did not work, either (Vicki Been 1994a; Kent Portney 1991). I think it is important to understand the difference between state-dictated compensation and the compensation that is arrived at through voluntary negotiation with locally controlled institutions. It is the same as the difference between the forced compensation you would receive from eminent domain proceedings that took your home and the compensation that you would get from a buyer to whom you sold voluntarily.

People who would willingly sell their property when they are ready and at a price to which they've agreed are often much aggrieved by the government's insistence that they sell their property at the market price (Jack Knetsch 1983). In the language of academic law, your ownership is protected from government takings only by a “liability rule,” while your ownership is protected from most other buyers by a “property rule” (Calabresi and Melamed 1972; Krier and Schwab 1995). Property rule protection — the right to just say no, or to demand whatever terms you want — is clearly preferable to most owners, including municipalities (Michael Schill 1989). Those who crafted the state-dictated compensation schemes for LULUs apparently underestimated the importance of that distinction.

It isn't simply the dollar amount of compensation that is important to communities; it is compensation arrived at by the consent of the community. Studies of successful LULU sitings indicate that community involvement, which I take to mean that residents can veto terms they do not like, is a critical feature (Bacot, Bowen, and Fitzgerald 1994). This may explain why private LULU developers seem to have better luck with compensation schemes than the public sector (Been 1994). Private developers usually lack the right of eminent domain, and the community authorities thus may feel less threatened. Sovereign power — in this case, the judicially declared power of the state over its municipalities — can be a Midas-like curse.

7-11 “Environmental Justice” Overlooks Local Consent

My contention that local governments can control the entry of unlovely land uses runs contrary to claims of the “environmental justice movement.” Its adherents claim that poor communities are stuck (involuntarily, it is implicitly assumed) with polluting uses such as
hazardous waste facilities. It is true that lower-income communities are more likely to accept problematic land uses, but this is almost always the result of a process that involves the consent of local authorities.

It is worth pointing out that while there may be dissenters at the end, as there are in all public decisions, the process of locating LULUs favors the status quo. Opponents typically get several times at bat in the numerous public forums that any nonstandard land use must pass. And the sober-sided research that evaluates the claims of the environmental-justice movement finds that there is almost no evidence for it. Vicki Been's several articles have shown that the poor often move to the site after it was located there (Been 1993), and that there appears to be no racial bias in the siting of hazardous waste facilities (Been 1994b; Been and Gupta 1997; Gupta, Van Houtven, and Cropper 1996). Been and Gupta’s more worrisome finding, that Hispanic communities have a disproportionate number of sites, is balefully consistent with my view that enfranchised citizens get what they want. Many Hispanics are not yet citizens.

What is clear, though, is that lower-income communities are more likely to accept the low-level polluters such as industrial sites and power plants. I have long argued that this is a desirable thing, a manifestation of voluntary exchange of local amenities for fiscal and employment rewards (Fischel 1975; 1979). To randomize the location of such sites would make everyone worse off. Fiscal and employment benefits would go to communities that did not value them as much as those that would voluntarily accept such businesses, and communities that were eager to bootstrap themselves into fiscal solvency would be denied the opportunity. Voluntary exchange makes municipalities better off in the same way that it makes individuals and consensual organizations better off.

An inverted confirmation of my view arose in 1998 when the U.S. Environmental Protection Agency, invoking new “environmental justice” rules, vetoed permits for a proposed chemical plant in a poor, largely African-American community in St. James Parish, Louisiana (Pittsburgh Post-Gazette, June 15, 1998). (Parishes are Louisiana's name for counties.) Although some parish residents applauded the EPA's veto, the majority were reported to be upset that their opportunity to get better jobs and improve their tax base had been foreclosed.

According to the article, the local government had actively sought the plant, and a Louisiana official cited “polls indicating local and countywide approval of the plant, and endorsements
from the NAACP and nearly every public official in St. James Parish as evidence that Shintech is welcome.” One wonders why denying such places the opportunity to get what even opponents to the project concede are much better jobs — $12 an hour plus benefits versus $6 an hour in the sugar-cane fields — is not itself a civil rights issue.

Yet I recognize that such exchange is anathema to many. Environmental rights are said to be inalienable, like voting and childbearing (Susan Rose-Ackerman 1985). We don't allow people to sell those rights, goes the argument. A closer analogy might be military service, whose parallel to environmental issues I explored a few years ago (Fischel 1996b). Many people argued that an all-volunteer military would be morally wrong (the U.S. had a draft from 1940 to 1973) because it would induce a disproportionate number of poor and minorities to choose a dangerous occupation.

The success of the all-volunteer service since it was adopted and reasonably funded (around 1980) has muted this criticism, but it is still there. If we do conclude that rights to even low-level environmental disamenities cannot be surrendered by the communal consent of those affected, then another process for distributing such disamenable uses must be decided upon. The controversial history of the military draft does not suggest that such a process would be easily implemented or happily accepted.

7-12 Conclusion: Compensation by Consent

The risk aversion that homeowners feel because of the concentration of their assets in one place makes them eager to participate in local environmental decisions. They are among the least-likely groups to give away their environmental birthright. I have argued in this chapter that local governments are, if anything, inclined to accept too little garden-variety industry, let alone the unlovely but necessary nuisances such as power plants, landfills, and quarries. Since the onset of zoning, the placement of such uses has almost always required consent of a municipality. In most cases, part of this consent was obtained by the prospect that the use would generate additional property taxes. For the state to expropriate this base because it makes the community look “property rich” seems fundamentally unfair.

Consent is best obtained by compensation offered in a system in which local governments can decline to accept the use. Schemes that force communities to accept compensation and the unwanted use are apt to meet much more resistance. The higher government that can force the
compensation today can change its mind tomorrow and simply force the city to accept unwanted uses without compensation. Being able to say no is a crucial part of the process of assuaging homevoters’ concerns.