Chapter 8: “Beggar Thy Neighbor” and Landfill Location

The previous chapter dealt with the claim that municipalities will trash their own environments, a claim disputed by theory and by evidence. This chapter deals with the possibility that one city might opportunistically foist the costs of its profitable but environmentally problematic land uses onto its neighbors. The notion that adjacent municipalities pursue “beggar thy neighbor” policies is similarly dubious, and I offer a fine-grained examination of an instance in which it was said to occur.

The constraints on “beggar thy neighbor” policies turn out to be similar to the reasons that individual property owners value neighborliness. The permanence of geographic neighbors makes them think about future as well as present relationships. They are locked into a web of mutually beneficial exchanges at both the political and the personal level. A major default from neighborly behavior on one front would invite retaliation on other fronts. The same example demonstrates, however, that these constraints can fail when neighboring communities do not have regular contacts with one another.

8-1 The “Beggar Thy Neighbor” Proposition

State-sized jurisdictions, the type Oates and Schwab (section 7-2 above) were concerned with, do not have to worry much about spillover effects from localized environmental policies. Most of their territory is several miles from the borders of other states. For in-state decisions about problematical land uses, the trade-off is a political game of “we against us.” But in smaller jurisdictions, the in-town decision is more likely to have out-of-town effects. The smaller area of local government makes it more likely that local land-use decisions will have effects that spill over to the next jurisdiction.

In generating employment spillovers, the small size of municipalities is usually a good thing. Firms can find a municipality willing to accept them more easily when jurisdictions are numerous (and thus small), and workers in other municipalities in the metropolitan area can commute there. But those same job centers may in turn generate excess traffic, noise, unsightliness, and smells that annoy people in neighboring towns who are not getting the benefit of whatever compensation the firms are paying their host community.
Economists have suggested that communities might deliberately engage in a beggar-thy-neighbor policy (Michelle White 1975, p. 198). They could place their less-than-neighborly land uses on the borders where the costs will fall on other communities, while the fiscal benefits stay home. I have for years searched in vain for a systematic study of this proposition. This is why I took such interest in an article in the *Journal of Environmental Economics and Management* by Daniel Ingberman (1995). His largely theoretical article takes the strongest position that I have read in favor of the inevitability of an inter- and intra-municipal beggar-thy-neighbor syndrome. David Spence and Paula Murray (1999) invoke his findings in support of federal preemption of state and local law in order to prevent an environmental race to the bottom.

In Ingberman’s political model, voters in one community are so self-interested that they eagerly foist profitable but disamenable uses either onto their outvoted fellow residents in remote sections of town or onto the neighboring community's residents. This creates an incentive to accept too many polluting firms because the majority of voters do not perceive the full costs of their actions.

The scenario that Ingberman paints for the *intra*municipal excess assumes that self-interested voters in one part of town will vote to locate profitable but polluting developments in a lightly populated part of town. This is inefficient because the economic losses to property in the lightly populated area might not be exceeded by the economic gains to the community at large by having the polluting industry. Now, under the conditions of the famous Coase (1960) theorem, this scenario would not happen. People in the lightly populated area would simply pay the majority to foreswear such activity and write an iron-clad covenant, running with the land, to prevent it from happening in the future. But the present book (unlike my last two) is not about the Coase theorem. I’ll assume that the transaction costs of such side payments are too large. Instead, I’ll look to other institutions.

8-2 Property Taxation Promotes Mutuality within Cities

The property tax is one institution that helps forestall majoritarian transfers within communities. This is because having property as a tax base makes voters interested in maintaining it in the future. Devaluing one person’s property means that others must take on the tax burden, assuming uniform taxation requirements. This is why rent control is usually opposed by homeowners, as I described in section 4-7. Uniform property taxation makes each taxpayer
interested in the value of property held by every other taxpayer. In upholding an early zoning law, a Minnesota judge pointed to the erosion of property-tax base in residential districts invaded by nonconforming uses: “The loss is not only to the owners, but to the state and municipality by reason of the diminished taxes resulting from diminished values” (Twin City Building v. Houghton 1920, p. 162).

As a concrete example of the property tax's protective incentives, consider a proposal to site a profitable landfill within a community. The dump's profit will be shared with the community by means of land-use exactions, money paid by the developer in exchange for a rezoning that permits the dump. The dump, however, will devalue nearby homes of a small group of residents. If the devaluation of the homes is taken into account, the dump should not be built, even though a majority of the community would benefit.

The ad valorem property tax provides an automatic signal to all voters that the dump may not be the best use of the land. The reduction in the value of the homes near the dump will shift the burden of the tax to other residents of the community. Because they anticipate this, the majority will be more cautious about allowing land uses that reduce the aggregate value of property in the community. Such a signal would not be present (except under the conditions of the Coase theorem) if taxes were assessed on the otherwise more efficient basis of heads or land area.

A real-world example of the benign incentives of property taxation can be seen in the behavior of California municipalities after Proposition 13 was passed in the 1978 tax revolt. With the property tax no longer much of a source of revenue, municipalities have sought land uses that produce sales tax revenue, part of which is rebated to the point-of-sale jurisdictions. This skews land-use decisions toward commercial uses rather than property values generally (Lewis and Barbour 1999; Jonathan Schwartz 1997). In a 20-year retrospective on Proposition 13, the San Francisco Chronicle (May 20, 1998) interviewed Lenny Goldberg, leader of the “liberal California Tax Reform Association, no fan of Proposition 13.” The article went on:

A few years ago, a Southern California town had a Price Club store and an Eastman Kodak research center competing for the same piece of city-owned land, Lenny Goldberg said. The city instantly took the Price Club and its $800,000 a year, even though the research center was an attractive, nonpolluting source of new jobs…. “Increases in homes
and offices now are seen as bringing no benefits, but only costs and more strain on the local infrastructure,” such as schools, roads and public services, Goldberg said.

A formal model that encompasses the main idea behind this principle was developed by Edward Glaeser (1996). He starts with the observation that informs this book: Voters are interested in activities that enhance property values. But his public officials are not responsive to the median voter, as they are in my view. Instead, Glaeser assumes a worst-case scenario in which the local public officials are “kleptocrats” who simply try to maximize tax revenues. He supposes that voters know this tendency in advance and want to select a tax base (embedded in an unalterable constitution) that will nonetheless give the kleptocrat incentives to maximize their property values. Glaeser's choice that the community must make is between a head tax and a property-value tax.

The tax that is most likely to maximize property values will generate the greatest demand for housing (the only taxable property) in the community. In other words, to get more tax revenues, the kleptocrat has to make the community attractive to potential immigrants. Kleptocrats can also use some of the tax revenues to provide amenities to attract potential taxpayers, but their sole interest in doing so is to maximize net tax revenues.

Glaeser finds that, under a variety of circumstances, the property tax is superior to the head tax in aligning the interests of homeowners and “kleptocratic” officials. The reason is that the head tax in several cases generates more taxes but, because of overcrowding, lowers the level of amenities and thus lowers property values. Under a head-tax regime, tax-hungry officials ignore that new residents may lower aggregate property values, just as the California city officials in the example above discounted the effect of a sales-tax generator (the Price Club) on property values.

The more “incentive-compatible” tax in Glaeser’s analysis is the property tax. The incentives of the decision-makers are made compatible with the objectives of the majority. Even officials who are indifferent to residents’ well-being will be induced to adopt land-use and spending policies whose effect is to maximize property values, for only in that way will they maximize property-tax collections. (Recall that the officials don’t get to select the tax base, the residents do, but the residents don’t get to control officials’ behavior afterwards.)

I do not assume that public officials are kleptocrats. Majority voting, however, raises a similar anxiety about oppression of a minority within the municipality. Glaeser’s model shows
that a uniform property tax constrains majoritarian decisions to take account of the minority. But there is probably a more important constraint in most communities. Residents of such places are seldom strangers to one another. They meet on multiple fronts: Their kids go to school together; they shop in the same places; they are involved in civic activities. As I will suggest in section 8-10. below, such interactions constrain opportunistic behavior in the local political realm. Even if a majority of residents were so cynical as to exploit fellow community members, it seems to me that they would not be acting in their own self interest. Who would want to buy a home in such a place?

8-3 Does the Prisoners' Dilemma Overproduce Dumps?

The intercommunity spillover-effect invoked by Ingberman (1995) is the more interesting and policy-relevant issue. In Ingberman's framework, a large, monopolistic, and well-heeled polluter plays one community off against the other. By purchasing land along the border of both communities, it can threaten each of them with the prospect of moving to the other side. If the polluter locates in your community, you get the taxes (or other side payments) from the firm, and half of the pollution. If it locates in the other community, you still get half of the pollution but none of the side payments. By threatening each community with the prospect of being the sucker who gets the dirt without the dollars, the firm induces the eventual host community to lower its demand for side payments.

In this version of game theory's famous prisoners' dilemma, neither community ends up gaining much in compensation. (For contextual explanations of the prisoners' dilemma and how it can be avoided in close-knit groups, see Robert Ellickson 1991a, chap. 9.) The inefficiently low level of compensation in turn encourages too many firms to enter the polluting industry because they do not have to pay for their pollution. It is as Hobbesian a situation as one can imagine, and Ingberman proposes Hobbes's solution: The higher sovereign takes over the siting of polluters to prevent this war of all against all. This is the more sophisticated justification for federal environmental policy. It does not rest on local irrationality, but instead of too much (apparent) calculation by local officials in the face of intermunicipal spillovers.

Ingberman presents two examples to support his thesis. (This is two more than most other game theorists offer in arguments like this.) One is simply a map of Pennsylvania with county boundaries overlaid with the location of the state's 46 official municipal waste landfills in 1992.
A majority appear to be near the borders of an adjacent county, suggesting a pattern of imposing costs on unrepresented outsiders. Ingberman’s finding impressed Richard Revesz (1996, p. 2354), who is otherwise skeptical of race-to-the-bottom scenarios. The scale of Ingberman’s map, however, is too gross to determine anything about intercounty spillover effects. Even hazardous waste sites cease to have deleterious effects on property values beyond a range of about two to four miles, according to Stephen Farber's (1998) survey of empirical studies. It is not evident from Ingberman's Pennsylvania map that anyone in an adjacent county suffers from any spillovers or that the process did not involve the consent of adjoining municipalities. (An e-mail from a spokesman for the Pennsylvania Department of Environment in February, 1999, assured me that siting a landfill is a process involving all communities in the area, though I do not know how long such rules have been in effect.)

Ingberman's more persuasive and extensive example concerns a landfill in the borough of Tullytown, Pennsylvania, which adjoins the Delaware River about 15 miles northeast of Philadelphia. The blue-collar borough has a population of 2200 on 2 square miles. Its landfill, which opened in 1987, covers nearly a third of a square mile in area. The dump is owned and operated by Waste Management, Inc. (WMI), the nation's largest for-profit company that accepts municipal (not hazardous) waste on this site from haulers in Pennsylvania and New Jersey and, more recently, from New York City.

Two miles east of Tullytown's landfill is an equally large dump called the GROWS landfill in Falls Township, Pa. It is also owned by WMI, though a different company had established the landfill in the early 1970s. Ingberman deploys the juxtaposition of the two landfills to illustrate his proposition that competition among weak municipalities (Tullytown and Falls Township) and a monopoly-like landfill developer (WMI) will result in a race to the bottom of the environmental heap.

To his considerable credit, Ingberman undertook some site-specific research to explore his example. He cited a newspaper article (Philadelphia Inquirer, November 18, 1990, p. A1), communications with Tullytown officials, and the borough's public documents. The two-page picture he paints seems to support his example. A Falls Township resident is quoted in the news article as declaring, “The [Tullytown] landfill is practically in our backyard, yet we get nothing out of it.” Ingberman then notes, though, that Falls Township also has a landfill owned by WMI and is paid $2.5 million annually in host fees. The message, as I hear it, is that neither Tullytown
nor Falls would have taken its landfill if it had not been worried that the other would grab it, and both settled for lower compensation than they would have but for that threat.

Ingberman goes on to note that Tullytown was in a weak bargaining position vis-à-vis WMI. It faced a large municipal deficit in 1987 and lacked a land-use plan (though it did have zoning) when approached by WMI to site its landfill. Poor Tullytown was unable to put up more than a token legal fight. Ingberman was told by Tullytown officials that even if they did resist, WMI would just expand right next to their border, leaving them with all the spillovers and none of the cash. The Borough Council President stated in the November 18, 1990, newspaper article that “since the landfill was something we couldn't stop, I think we've made the best of the situation.” Although Tullytown receives $1.5 million annually in host fees, Ingberman notes that this is less than the $2.5 million received by Falls Township.

From these sources Ingberman offers a “possible explanation” for the rape of Tullytown, one that fits his basic beggar-thy-neighbor, race-to-the-bottom scenario. As he enumerates this explanation: (1) Tullytown lacked bargaining power. (2) WMI could credibly threaten to develop in Falls Township, right next to Tullytown. (3) The existence of potential dump sites along their joint border “may have disciplined the reservation values of both localities downward” because “WMI could have feasibly expanded in either Tullytown or Falls Township.”

8-4 Tullytown's Landfill Location Looks Sensible

Ingberman's intrepid search for facts with which to illustrate his theory inspired me to do some additional research. I obtained U.S. Geological Survey maps (Trenton-East and adjacent quads) of the Tullytown area and located the landfill sites with the aid of an online map provided by a Bucks County-based landfill opponent, an environmental group called “B-PURE.” My chief source, however, was the online archives of the Philadelphia Inquirer, which go back to 1982. The Inquirer covered the landfill issue extensively and intensively. Keywording “Tullytown” or “Falls Township” and “landfill” produced more than a hundred articles between 1982 and 1998. I read the first paragraphs of each of these articles and purchased the complete text of sixteen that appeared to give especially thorough background coverage, chiefly those in Sunday editions. I also visited Tullytown and Falls Township and looked at the landfills from a number of vantage points in July and December of 1999.
The picture that emerges from my longitudinal and close-up look is not completely at variance with Ingberman's remote-camera snapshot. Both Falls Township and Tullytown were in a much poorer position to defend themselves from a landfill siting than other boroughs and townships in Bucks County. But the factors leading to this weakness do not appear to be irrational or unfair.

A stylized map (Figure 2, adapted from the aforementioned USGS maps) might help explain this. I have indicated Tullytown as a pentagon (its approximate shape) and the three landfills as rounded boxes marked G, T1, and T2. The area east of the railroad tracks is dotted with lakes and coves (near the tracks). The remaining portion of the eastern side (nearer the river) is industrial. The remaining operations of U.S. Steel Corporation's Fairless Hills plant and related businesses dominate the landscape. USX, as the steel manufacturer is now known, has downsized the plant and sold nearly 8 square miles of its nearby land to WMI. Falls Township had permitted the landfill called GROWS (marked as G on the map) to be established in 1972 between the steel plant and Tullytown. A landfill that served both the steel mill and municipalities was established at the GROWS site sometime before 1972.
The GROWS site seems like a logical place for a landfill. It does not take much acquaintance with steel mills (I grew up near one about 40 miles north of this area) to know that they are somewhat messy, and that land nearby is probably best used for something that is similarly messy. The 1983 USGS map indicates few residential structures anywhere near the plant or the dump site. On my 1999 visits, I saw no residential structures in the vicinity other than those in Tullytown itself. There is a structure that appears to be a former farmhouse located between the landfill sites. It is now an office building for WMI. Behind it, on an inlet that separates most of Tullytown’s homes and businesses from the landfill, are seasonal recreation sites that are, according to the security person I talked to, avidly sought by boaters.

Tullytown's zoning apparently recognized that the area on which its landfills were placed (denoted T1 and T2 on the map) was poorly suited for residences. The land was zoned for industrial development. This designation specifically permitted landfills when WMI purchased the site. If Tullytown was being gamed by WMI, it had set itself up to be taken advantage of.

Had Tullytown possessed deep pockets, it might have been inclined to hire a lawyer to defend a change in its zoning after WMI had bought the land. But even with the best lawyers around, it would have been an uphill fight, especially in Pennsylvania, whose courts subscribe to the unusual theory that all communities ought to be zoned for all things (Ellickson and Been 2000, pp. 896-99). As an example, when Falls Township denied a variance to WMI to expand its original landfill site, the Pennsylvania appellate courts actually reversed the township zoning board (WMI v. Falls Township 1986).

8-5 Tullytown and Falls Township Won a Fiscal Jackpot

It wasn't just the courts who nudged Tullytown and Falls Township toward having a landfill on their industrial-zoned land. The anxiety-ridden “race to the bottom” that supposedly motivates the municipalities is said by Tiebout pessimists to be prevented only by appeal to higher governments. As Robert Inman and Daniel Rubinfeld put it, “The final outcome of Tiebout's competition among small governments will be a race to the bottom and economically inefficient public policies. The solution is to find a more centralized government to manage these misallocations” (1997, p. 1222).

Representing the larger public interest and possessing resources greater than the municipalities, regional and state governments are supposed to be the referee or big brother
(depending on the problem) who prevents the municipalities from mutually trashing each other or being trashed by the likes of big WMI. Both Bucks County and the Pennsylvania Department of Environmental Resources had oversight in these matters. Bucks had to have a plan to dispose of its regional garbage, and the state's department had an elaborate set of command-and-control rules for landfills to prevent air and water pollution. Either agency could have stopped either landfill.

But in fact, both agencies pre-approved the landfill sites and their subsequent expansion in both Tullytown and Falls Township. Bucks County in particular was eager to have a disposal facility to deal with its 1980s garbage crisis. It accepted a “host fee” (35 cents per ton of waste accepted by the landfill, projected at about $1 million per year) from WMI for all out-of-county garbage that it accepted. Bucks County officials promised to earmark much of those revenues for special facilities to benefit the area that was adversely affected by the landfill — which included Tullytown and Falls Township.

All of this pressure from the county and the state makes it look as if Tullytown was a reluctant bridegroom. But even allowing for the possibility that its original, industrial zoning designation that permitted landfills was a mistake, Tullytown officials' protestations of powerlessness as noted by Ingberman have the look of trying to justify their actions to a potentially envious outside world. In the November 18, 1990, article that Ingberman cites, the Philadelphia Inquirer's reporter characterized Tullytown as

“positively rolling in dough. So much dough the Bucks County borough has paid off its Fire Department's $200,000 debt and purchased a brand-new pumper. So much dough officials plan to repair and repave every street and curb in town. So much dough the borough of fewer than 2,500 people is renovating Main Street, building a $1.3 million municipal hall, beefing up its police force and spending a cool $50,000 on next year's centennial celebration.”

The mayor of Tullytown is quoted in the same article as saying, “A lot of people are very jealous of the wealth we have.” My visit to the town confirmed that Tullytown's public capital is new and exceptionally attractive for a small borough.

In addition to improving town facilities, WMI's side payments have enabled the borough to give grants to local property owners of at least $1000 per year for most of the 1990s. There is
enough left over from these expenditures that Tullytown has invested it with the objective of seeing to it that it will never have to levy any local property taxes after the landfill is closed. Some of these side payments appear to have been used by property owners to spruce up their homes, though it is not clear that they were earmarked for that purpose. My impression from walking down the borough's main street was that a vinyl-siding company had bequeathed the village free siding for life. No one would mistake Tullytown for an affluent suburb, but its appearance suggests that its residents had recently won a medium-sized lottery prize.

The neighboring municipality, Falls Township, gets even larger payments from WMI, since its landfills (GROWS and part of the expanded Tullytown dump, T2, that now crosses the township line) are even more extensive. Ingberman tries to put a glum face on the township's larger payments by noting that Falls Township has many more residents, so that the per capita payments are lower. But nearly all Falls Township residents live on the western side of the railroad tracks and endure almost none of the disamenities from either dump. From Fall's Township's side of the tracks, it is difficult even to see the mountain of trash, which, as it is deposited, is covered with topsoil and seeded with grass. WMI's payments finance half of Falls Township's government operations, which result in lower taxes and better services for the entire township. The Township's website points with pride to a new park built without tax financing.

A good fraction of Tullytown residents live on the east side of the railroad tracks, where the dump is a visible presence. At more than 200 feet in height (WMI gained permission from both municipalities in the 1990s to pile it higher than originally permitted), the artificial mountain is more than twice the height of the nearest hills in the area. Except for this, however, the dump seemed hardly noticeable when I visited. Garbage trucks streamed to the landfills while I was there, but all were routed over the main highways and avoided residential areas in Tullytown and Falls Township. (The Tullytown Borough Manager confirmed that WMI purposely avoids the settled areas.) Although it was a hot day when I visited in July, my normally sensitive nose did not at any point notice unusual odors.

The verdict for Tullytown's bargain thus seems unclear. The landfill is visible from Tullytown, and people do wonder whether it will cause pollution at some later time. But for Tullytown, taxes are no problem anymore, and residents have much better public infrastructure and a modest annual addition to their disposable personal income to boot. The cash payment, voted annually by a borough council that has much turnover, has always been somewhat tentative
over the years. It will be eliminated once the dump is closed, though then the active working of the dump will cease, too.

8-6 Home Values Did Not Suffer from the Dump

As the theme of this book has suggested, one way to determine whether the localized benefits exceed costs of Tullytown's pact is to look at how its home values have done over the years. The tax reductions, rebates and new public infrastructure should raise Tullytown's home values relative to those in other towns, while the dump's spillover and reputation effects should reduce them. If Tullytown's home values rise faster than otherwise comparable values in towns without the landfill, then Tullytown has come out ahead. If they've fallen, Tullytown has, on balance, suffered the “frown of the world” for having hosted it.

I selected two other boroughs near Tullytown as control groups. They are Bristol, three miles downriver, and Morrisville, six miles upriver. The advantage of these comparison boroughs is that their circumstances look fairly similar to Tullytown's, but neither hosted a landfill. All three boroughs have a housing stock that has remained stable in size since 1980, so I am reasonably sure that 1980, 1990 and current home values reflect the circumstances of the same properties, not new subdivisions. (This is not true for the adjoining townships of Falls and Bristol, which have continued to grow over the period.) Morrisville Borough annexed some territory from the adjacent township in the 1980s, but it is possible to subtract the annex's influence on the Borough's housing stock by using census tracts. Each of the boroughs' racial composition is more than ninety-percent white.

A drawback of this comparison group is that Bristol and, to a lesser extent, Morrisville, may have been affected by the Tullytown landfill. Bristol is 3 miles from Tullytown and Morrisville is 6 miles away. But the main adverse effects — visibility of the mound, truck traffic, and seagull droppings — were not mentioned as affecting Bristol or Morrisville in the many newspaper stories that dealt with the landfills. This is in contrast to the many stories about such impacts on Florence Township, New Jersey, whose travail will be described presently. I walked around both towns on my 1999 visits, and the presence of the landfills was imperceptible.

The Census data show that home values in the two census tracts that comprise Tullytown rose almost exactly as rapidly (150 percent) between 1980 and 1990 as those in Bristol and Morrisville. The establishment of the GROWS landfill in Falls Township in 1972 could have
telegraphed to homebuyers in 1980 that a similar landfill was about to be established in Tullytown in 1987, which would then compromise this comparison. The scenario seems unlikely, though. Articles about the Tullytown landfill in the *Inquirer*, whose on-line archives go back to 1981, did not appear until 1986. The nearly identical housing-appreciation values in all the towns therefore suggests that the net effect of the landfill on Tullytown during the landfill's formative years was nil. The bad things that happened as a result of the landfill seem to have been offset by the good things that happened as a result of WMI's side payments. The landfill looks like a wash.

Subsequent data suggest that Tullytown may have done a little better in the 1990s, when the side payments grew along with the height of the mound. The web site for the local Bucks County newspaper, the *Courier-Times* <www.phillyburbs.com> has “home values” for the towns in the area. It does not indicate their source or their date, but if they can be taken as comparable to the 1990 census figures for each borough, they indicate that Tullytown's home values have risen 6.2% and Morrisvilles's (including its annexed territory in 1990) have risen by 3.0%. Values in the Borough of Bristol declined by 7.6%. (Bristol has a markedly poorer population than either Tullytown or Morrisville, and the average income of all three boroughs are poorer is below the average for Bucks County, which is the most upscale of Philadelphia's suburban counties.)

By this evidence then, it does not seem that the landfill and its operation have done any damage — or provided much advantage — to Tullytown homeowners. The parity may understate Tullytown's advantage, however, since its fiscal affairs and the public infrastructure prior to the 1986 WMI agreement may have been on a downward trajectory. Without the infusion of WMI's cash, the town in 1990 might have had home values that were lower.

I don't have comparable housing-price data for Falls Township because, as I mentioned, the township's housing stock grew over the period. But it seems reasonable to suppose that Falls Township was a net winner from the landfill development. Nearly all of its residents live farther from the dumps than most of Tullytown's residents. Moreover, Falls got little adverse publicity from the dumps because its original landfill (G on the map) was called and continues to be called by the acronym “GROWS,” and Falls Township's share of the expanded dump (T2 on the map) is invariably designated as the Tullytown landfill. Falls does have to endure garbage-truck traffic, but this is confined to the main roads that parallel the railroad track and are thus removed from residential neighborhoods.
The net effect of the landfills from this calculation seems positive. In one respect focus on Falls Township and Tullytown understates the region's gain, since without their landfills, communities in Bucks County and other area towns and cities would have to send their municipal waste to even more remote sites, at presumably greater cost, or developed them within their own borders on sites that would seem to be at least as problematical.

8-7 Do Unto Others… ?

My mission here is not to undertake a benefit-cost analysis of the municipal landfill. The issue relevant to this chapter is that raised by Ingberman: Was the siting of the landfills in Tullytown an example of a “beggar thy neighbor” policy, and did it result in too many sites being developed for landfills and adverse effects on each community?

The home-value evidence that I just presented seems to confute the last charge. At worst, neither community was made worse off by the combination of spillover effects and side payments. It could be argued that their home values should have risen more than those of otherwise comparable communities as a result of the landfill's host payments. (I admit that I thought they would, given the glowing newspaper accounts of Tullytown's fiscal prosperity.) But in that case, the dump would become too attractive to other communities, and they would be eagerly sought by them, which could result in yet more landfills being developed. So leaving the community only slightly better off on net seems more consistent with an efficient allocation of landfills.

Ingberman's suggestion that WMI bargained down its compensation to Tullytown by threatening to move to Falls (or vice-versa) is belied by WMI's eagerness to develop landfills in both communities. The reason for its eagerness is obvious. Siting a landfill, municipal or hazardous, in any location is extremely difficult (Kent Portney 1991). Pennsylvania, a leader in rationalizing landfills (and hence the leading importer of out-of-state waste), passed a law in the early 1980s requiring that private operators had to pay host counties 25 cents a ton as compensation for the waste. WMI ignored this floor and immediately offered Bucks County 36 cents a ton. Subsequent requests for expansion of the landfill upward and outward have elicited ever more generous compensation for Falls and Tullytown, reported in 1992 as $4.00 per ton.

As I noted in section 8-3, Ingberman quoted one Falls Township resident as saying, “The [Tullytown] landfill is practically in our backyard, yet we get nothing out of it.” This person was
described in the same *Inquirer* article (November 18, 1990) as “a Falls Township resident who lives just shy of the Tullytown border.” But if he does, he is unrepresentative of Falls Township's 35,000 residents. His claim also neglects that Falls Township was (as Ingberman did mention) actually getting more aggregate side payments from WMI than Tullytown was, and that Falls Township had the original landfill next to the steel plant. At any rate, the issue being examined here is not that landfills will be acceptable to everyone. The hypothesis is that municipalities will foist fiscally profitable disamenities on the borders with their neighbor that they would not do unto themselves.

What would be more convincing evidence of a beggar-thy-neighbor policy would be either that Tullytown or Falls Township had an alternative site, not near the other's border, that looked equally attractive for a landfill, or that the landfill sites could have been more profitably developed in an alternative use. I cannot say that I've surveyed all of Falls Township, but nothing on the USGS maps of the area suggests a similarly suitable nonresidential area. Nor did anyone cited in the many newspaper articles on the siting process suggest that landfills would be better located elsewhere in Falls Township or Tullytown. It looks as if geography and history — particularly the early establishment of the GROWS landfill next to the steel mill — not game theory, best accounts for this case.

**8-8 Township and Borough Comity**

Another approach to the beggar-thy-neighbor theory would be to look for it in other behavior by the two municipal land-use decision-makers. If there had been a deliberate, tit-for-tat policy of dumping unwanted but profitable land uses on municipal borders, one would expect to see unneighborly behavior to show up elsewhere. A clear opportunity to do so was reported in the *Philadelphia Inquirer* on September 14, 1989. The Falls Township Zoning Board was asked to grant a variance for a shopping center to be developed along the Tullytown–Fallsington Road, which forms the border between Tullytown and Falls Township at the proposed development. The only abutting neighbors to the proposed strip-mall were residents of Tullytown, and they showed up at the Falls Township zoning hearing and expressed their opposition. The township zoning board tabled the request despite a recommendation by its planning board that it should be granted. (The owner had a lot 77 feet wide at its narrowest point, and he could have built without a variance if the lot had been 80 feet wide.)
The Inquirer's next story on the shopping-center proposal was on January 14, 1990. It reported that the Falls Township Board of Supervisors turned down a request to rezone the land to allow the center to be built. I infer from the request for a rezoning that the variance had been denied after being tabled. When I visited the site in July 1999, there was no shopping center, just a few stores that appeared to have been there for more than ten years.

If the Falls Township Zoning Board or its Board of Supervisors had felt that they had been played the fools by Tullytown officials on the landfill issue, they seemed to be in a position to do a little payback at this time. They could have allowed the shopping center to be built, and the only apparent opposition came from Tullytown residents. Yet the Falls Township officials, acting against their own apparent fiscal self-interest and contrary to the recommendation of their own planning staff, disallowed the shopping center.

8-9 Florence Township, N.J., Was Out of the Loop

The Tullytown-Falls Township relationship does not seem to fit the beggar-thy-neighbor theory. Neither community seems to have lost out from the landfill decisions, and neither seems to be at odds with the other. Of course, a few residents of both places are not happy with the outcome. But that is no different from any other collective decision that is made on the basis of less than unanimity — even the best school districts have parents who are dissatisfied with them.

In the process of examining the Tullytown-Falls Township relationship, I came across an example that seems to fit the beggar-thy-neighbor proposition better. As one can see on the map, the residential area closest to the expanded Tullytown landfill is not Falls Township or Tullytown itself, but across the Delaware River (south of the dump, since the river bends westward in this area) in Florence Township, New Jersey.

Florence residents anticipated that they would be on the short end of the landfill decision from the beginning of the regulatory process. At a Tullytown zoning hearing on the proposed landfill on October 29, 1986, 150 Florence Township residents (of a crowd of 350) vigorously protested allowing the dump. They expressed anxieties that their wells would be polluted and that their air quality would be degraded.

As it turned out, one of their fears were well founded. As the dump expanded toward the river in the 1990s (with both Tullytown's and Falls Township's approval), seagulls that feasted on the garbage fouled waterfront properties in Florence. In addition, odors from the landfill’s
methane-recovery system occasionally waft across the mere 200 yards of river that separated the states at that point.

More obvious were the visual disamenities. Many Florence homes have backyards that overlook a bluff above the river. Their view of what had formerly been undeveloped riverine area on the Pennsylvania side was now a 200-foot high working landfill. Allegations that home values in Florence were dropping as a result cannot be easily confirmed, since the census tract in which it is located is much larger than just the area along the river. Nonetheless, the tribulations of Florence seem to be the more plausible example of a beggar-thy-neighbor policy.

I offer three conjectures as to why Florence's interests seem to have been disregarded in the planning of the Tullytown landfill. One is that Florence was out of the intergovernmental loops that bound Falls and Tullytown together. Falls and Tullytown officials sat on the Bucks County commissions that had to give permission to locate the Tullytown landfill. Indirect governmental relationships also held them together: They elected the same state and Congressional representatives (although their Congressman was prominently opposed to any landfills in his district). Falls Township and Tullytown officials rubbed shoulders when roads had to be planned, and their fire and police departments maintain a mutual-aid pact. Tullytown and Falls Township are part of the Pennsbury school district, which encompasses four municipalities. Florence Township, N.J., was part of none of these relationships. When any informal horse trading went on among public officials in planning the landfill, Florence was mostly out of the loop.

Intergovernmental contact is in fact pervasive in Pennsylvania and other states whose local governments are highly fragmented. Roger Parks and Ronald Oakerson (1993) offer a detailed account of how the 130 municipalities in Allegheny County (the center of the Pittsburgh metropolitan area) cooperate to take advantage of scale economies in police, fire, streets, and schools. With cooperative arrangements on many fronts, it would be strange to find that, in the land-use area, local officials would act uncooperatively. The overall evidence suggests in fact the opposite. Eleanor Ostrom (1990) and Vincent Ostrom (1991), whose lifetime of work on local institutions is well known among political scientists, conclude that local governments are capable of generating relationships that can overcome the temptations of the prisoners’ dilemma.
The second reason that Falls Township and Tullytown did not pay much attention to Florence's interests may have been the interactions of the townspeople. Here I lean on the work of Robert Ellickson (1991), who investigated how neighbors settled disputes — chiefly cattle trespass — in rural Shasta County, California. He found that dispute resolution was seldom governed by the law — few in fact knew the rules — but by bottom-up norms that Ellickson argued were actually more efficient than resort to the law. (Hence the title of his 1991 book, *Order without Law*.) Most important for my present purposes, Ellickson found that being an established neighbor — owning property and living on it — almost always forestalled opportunistic behavior that gives the prisoners' dilemma its doleful conclusion. Adjoining landowners know that the neighbor they might spite today is the neighbor they might need tomorrow.

I submit that Falls Township and Tullytown residents, not just their public officials, were bound in similar long-term relationships. Of course, these are urban people, not the residents of Shasta County's ranges, ranches and ranchettes. But there are surely many opportunities for personal contact in the urban setting, too. Falls Township and Tullytown parents send their kids to the same schools. The Levittown neighborhood in the north of Tullytown (the part west of the railroad tracks) continues seamlessly into Falls Township. Residents of both towns probably see each other at work, in social situations, at PTA meetings, at Little-League games, and in civic clubs almost as much as they see people from their own towns.

Neighboring towns in the same state and same county may not always get along, but a respect-thy-neighbor characterization is surely closer to the truth than the Hobbesian view that sees them perpetually on the prowl to get short-term gains from others. Moreover, even the prisoner's dilemma does not have to result in its tragic ending if there are opportunities for repeat play, as Robert Axelrod (1984) has shown in imaginative experiments and historical accounts. Falls Township’s unwillingness to permit the small shopping center because of Tullytown residents’ opposition (section 8-8 above) is consistent with the idea that long-time neighbors don’t normally take advantage of one another.

Residents of Florence Township, New Jersey, by contrast, probably encounter residents of Tullytown and Falls Township, Pennsylvania, only occasionally. It isn't that being in another
state is an insuperable barrier; it's that there is a river between them and there are no bridges that conveniently connect Florence with its Pennsylvania neighbors. The nearest local bridges are downriver in Bristol and upriver in Morristown. The Delaware Memorial Bridge is closer to Tullytown, but it connects the two state's turnpikes and is not a convenient, everyday route. Local suburban newspapers do not overlap in their territory, so local news of a Pennsylvania town's problems is less apt to be read about in New Jersey towns. The school systems of the two states, needless to say, are completely separate.

Thus there were fewer opportunities for the everyday interaction that might have made the 150 Florence residents at the 1986 Tullytown zoning hearing more familiar faces. It may explain why no similar Florence turnout was reported at the many subsequent hearings on the landfills. As true outsiders, Florence residents may have supposed that Tullytown and other Pennsylvania public officials would not pay much attention to their concerns.

8-11 Federal Courts Helped Out-of-State Homeowners

A third reason for the apparent derogation of Florence's interests may have been that Pennsylvania state and local officials anticipated that the landfill developer, WMI, would make its peace with Florence in federal court. Several suits were instigated by Florence Township residents as soon as the Tullytown landfill was given state and local permits. The litigation was finally settled out of court in December, 1998. WMI agreed to pay $2.1 million to Florence Township for public facilities and $3.1 million to individual residents whose homes had been devalued by the dump.

As part of the settlement, WMI agreed to undertake a nuisance-reduction program that would make less of the working face of the landfill visible to Florence residents and diminish the appeal of the landfill to seagulls. It also promised to help finance a cleanup of waterside facilities in Florence that had been fouled by the birds. When I visited Florence's waterfront area in July, 1999, the seagulls were not an obvious problem even though the landfill was then actively receiving trash.

I do not know if this settlement leaves Florence residents whole, but the $5.2 million lump sum (plus WMI's internalization activities, and less Florence's legal bills, which exceeded $1 million) is much less than the total of $5 million a year that Falls and Tullytown get in host fees. My informal survey of a statistically insignificant number — two, to be exact — of Florence
residents at a tavern near the river in December, 1999, elicited a mixed response. One man said
the dump was a terrible imposition on the community with no redeeming features. The other
respondent (the barkeep) was more fatalistic. She did not care for it, but she thought that waste
had to go somewhere. Tullytown takes much of the municipal waste of Burlington County, N.J.,
in which Florence is located. For some New Jersey officials, Tullytown was the answer to their
prayers.

But all in all, the apparent discounting of Florence's interests by Tullytown and Falls
Township does suggest the limits of a self-policing system of intermunicipal restraint. Over the
river and out of state, maybe there is something to the beggar-thy-neighbor proposition. It hardly
seems so pervasive, though, as to justify the enormous intellectual load that American
environmental policy puts on it.

8-12 Conclusion: Do Homevoters Constrain the States?

Local governments responsive to homeowners are among the least likely candidates to
produce an environmental race to the bottom. Whether their hypersensitivity to environmental
risk is caused by psychological concerns or by rational risk aversion, homeowners are, if
anything, too reluctant to trade environmental amenities for fiscal gains. Because local
governments are geographically permanent and interact regularly with most of their neighbors,
they are unlikely to pursue mutually destructive, beggar-thy-neighbor policies. When there is
some deviance from neighborly norms, existing legal and legislative institutions seem capable of
correcting them without wholesale preemption of local authority.

Interstate spillovers are a more serious problem, but, again, existing legal institutions and
doctrines do not seem so fossilized that they could not be adapted to dealing with them (Robert
Ellickson 1979). More widespread pollution issues are not well handled by local governments,
and my argument in this chapter does not suggest abolishing state or national review of such
issues. My position is simply that higher-government preemption of local land-use decisions is
not justified by the usual academic theorizing about a race to the bottom or a supposed
inclination of one municipality to beggar its immediate neighbors.

If my view that local governments are highly sensitive to environmental issues is credible, it
could suggest another reason why there is so little evidence that states engage in any serious race
to the bottom (McConnell and Schwab 1990; Richard Revesz 1997). It may not be that state
governments are attentive to their residents’ wishes, as the median-voter model invoked as a baseline by Oates and Schwab (1988) suggests. As numerous critics have argued, concentrated interest groups with much to gain from development would seem more likely to be served at the state level. The scenarios in which environmental quality is sacrificed in exchange for taxes, jobs and political favors seem more likely to be developed in the cloakrooms of the statehouse.

I think that this scenario is exaggerated in that state legislators and governors do seem sensitive to reputation effects. They may also be restrained by the interactions that they and their citizens have with those of other states, though, because of the size of states, the average level of interaction is much smaller than for adjacent municipalities. But even when states are inclined to go too far to attract problematical industry, where are the offending polluters to be located? Most states are covered with local governments, and most local governments have zoning laws. Even municipalities that lack zoning can quickly implement an interim zoning law if their residents get wind of an unwanted land-use proposal.

The state government has the right to override local laws, but in practice, such preemptive laws are hardly ever effective. Local governments are simply too strong a force in most statehouses. So the would-be polluter, although licensed by the state government, has to appease the local government and the homeowners at a local hearing. The prospect of this review, rather than state-level concern for reputation, may be what restrains the interstate race to the bottom.