

The Steep Costs of Using Noncumulative Zoning to Preserve Land for Urban Manufacturing

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In cities around the country, huge swaths of property in desirable locations house only empty warehouses, barely-used shipping facilities, and heavily subsidized industrial-age factories, often right across the street from high-end condos and office buildings. The reason is a widely-used, but poorly understood form of local industrial policy known as non-cumulative zoning. In contrast with traditional Euclidean zoning, in which manufacturing uses were prohibited in residential areas but not vice versa, areas that are zoned non-cumulatively allow only manufacturing uses and bar any residential (and sometimes even commercial uses) of property. The arguments for non-cumulative zoning are always the same: Cities seek to (a) reduce the degree to which urban manufacturers are held responsible for nuisance and (b) subsidize urban manufacturing by reducing the competition for land and hence reducing the price.

In this Article, we argue that non-cumulative zoning is an idea whose time has passed, if there ever was a convincing case for it at all. The two major justifications for non-cumulative zoning are flawed, and alternative means could achieve the same ends with fewer costs. The large number of nuisance claims engendered by urban manufacturing could be addressed by creating a “right to stink” in certain zones, allowing residential and commercial users to move into these zones but prohibiting them from suing manufacturers who are not violating regulatory laws. As for the second manufacturer-subsidizing justification, subsidies cannot be justified in terms of a subsidizing city’s own welfare unless the external “agglomeration” benefits of manufacturing exceed the cost of the subsidy to the city. Moreover, the broader social perspective also requires that some cities are better able to capture those agglomeration benefits than others, meaning that competition between jurisdictions could result in total increases in wealth. However, non-cumulative zoning is unlikely to achieve either local or broader social efficiency. Its scope is not closely tied to any theory of external benefit; it encourages the inefficient use of land and the substitution of land for other inputs; and it hides the true cost of urban manufacturing subsidies from the public. If urban manufacturing must be subsidized, a direct cash subsidy system would be preferable, particularly if it could be funded directly from taxes on the increased value of land caused by the removal of a non-cumulative zoning designation.

INTRODUCTION

We both now live or have lived in Brooklyn, in a neighborhood that real estate brokers call “Cobble Hill,” just a few blocks from the East River. The location allows you simultaneously to get some exer-

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cise and study land use regulation by taking a run along the South Brooklyn waterfront. If you run south along Columbia Heights and Van Brunt, you enjoy one of the city's best views of the Upper Bay and Manhattan: just by turning your head, you can see a stretch of river from the Brooklyn Bridge to the Verrazano Bridge, encompassing the towers of the Financial District, the Statue of Liberty, Governor's Island, and Staten Island. It is not far from Cobble Hill's and Carroll Gardens's popular restaurants and cafés, and the area received some press when MTV's *The Real World* filmed a season from a building nearby.¹ The land seems like a prime spot for a condo with a view.

But the buildings enjoying this magnificent vista are often abandoned or underused, frequently consisting of apparently empty warehouses, some usually idle container cranes, and crumbling concrete lots surrounded by chain-link fence. The waterfront still has a couple of significant industrial employers. On Piers Seven through Eleven, for instance, American Stevedoring leases land from the Brooklyn Port Authority, although the rent is apparently paid from funds supplied by the state, and the cocoa beans that the company unloads are barged over to Port Newark, New Jersey.² The Golten Marine Company operates a maritime repair facility next door to American Stevedoring. But heavy maritime industry has mostly left the area: The two most conspicuous businesses are the Fairway Grocery and the new IKEA, both commercial retailers in Red Hook that cater to city residents. (IKEA runs a free water taxi from Wall Street to draw in customers.) These retailers are surrounded by the skeletons of crumbling warehouses and defunct cranes, the relics of Brooklyn's manufacturing past that long ago departed for New Jersey with the container revolution. Indeed, IKEA actually created a sort of break-bulk museum on the waterfront promenade behind its store, incorporating some of the old cranes and docks, complete with informational plaques.

The absence of housing from New York's waterfront is, in large part, the result of zoning. Since 1961, the city's zoning resolution has barred residential uses from manufacturing zones, and 30 percent of the city's shoreline is presently zoned for industrial use.³ Such "non-

¹ See Ginia Belafonte, *The Show that Put the 'Real' in Reality TV*, NY Times C1 (Jan 7, 2009); Jeff Vandam, *Where Tugboats Chug and Ikea's Coming*, NY Times sec 11 at 9 (Mar 11, 2007) (describing the developing restaurant row in Red Hook that is close to Carroll Gardens).

² See Ali T. Winston, *Dredging for Dollars*, NJ Star-Ledger 14 (Apr 27, 2008); Charles V. Bagli, *Lease Ends Uncertainty for Red Hook Cargo Docks*, NY Times B3 (Apr 25, 2008).

³ New York City Department of City Planning, *Executive Summary, New York City Comprehensive Waterfront Plan: Reclaiming the City's Edge* *68 (1992), online at <http://www.nyc.gov/html/dcp/html/pub/wf.shtml> (visited Nov 8, 2009).

cumulative” manufacturing zones (that is, zones that do not allow the “cumulation” of uses less noxious than industry in manufacturing zones) bar housing in a considerable part of New York City. According to Regina Armstrong’s study, the city zoned 22,500 acres for industrial development to the exclusion of residential uses in 2005.⁴

Why not allow residential uses in these manufacturing zones? Advocates of noncumulative zoning typically offer two general sorts of ways in which residential users could threaten industrial uses. First, residential users are said to burden industry with complaints and nuisance lawsuits. Keeping residences out of industrial zones is a regulatory analogue to a “coming to the nuisance” defense in tort law, preserving industrial investments from encroachments by sensitive users. Second, residential users outbid industrial users for land, driving industry out of the city in search of cheaper real estate. By excluding residential uses, noncumulative zoning protects urban industry from these threats of escalating real estate prices.

As we suggest below, neither of these arguments are compelling reasons to exclude residential or commercial uses from manufacturing zones. Industry could be protected from nuisance litigation by giving industrial users a defense of regulatory compliance, and industry would be better subsidized through tax credits or outright budget outlays than through zoning benefits. Noncumulative zoning is indefensible as a rational mechanism for attracting or retaining manufacturing enterprises that generate some spillover benefit for the city, and generates costs that are not included in a city’s public budget and hence are hidden from ordinary group competition for scarce public resources.

I. A BRIEF HISTORY OF NONCUMULATIVE ZONING

Prior to World War II, most zoning ordinances followed the model of the *Village of Euclid v Ambler Realty*⁵ by providing for “cumulative” or “inclusive” zoning districts defined by a hierarchy of uses. The highest use was the single-family home, and land zoned for such homes excluded most other uses, including multifamily residential uses. Land zoned for uses deemed to be more obnoxious than the single-family use would permit single-family homes as well as all uses deemed to be less noxious than the most nuisance-like use permitted in the zone. Thus,

⁴ See Regina Armstrong and Tina Lund, *Up from the Ruins: Why Rezoning New York City’s Manufacturing Areas for Housing Makes Sense*, 2 Rethinking Develop Rep *iii (Manhattan Institute for Policy Research, June 2005), online at http://www.manhattan-institute.org/pdf/rdr_02.pdf (visited Dec 20, 2009).

⁵ 272 US 365 (1926).

commercial, multifamily, and single-family uses would all be permitted in industrial zones, and landowners could freely convert industrial uses into other uses within those zones as the market dictated.

After World War II, municipalities began experimenting with noncumulative zones that excluded residential uses from industrial zones. During the 1950s, state courts were typically skeptical of such ordinances, regarding them as inconsistent with the antinuisance rationale for zoning that had been proffered in *Village of Euclid* as zoning's primary justification.⁶ Between 1953 and 1956, state courts repeatedly overturned such ordinances as either inconsistent with the state constitution or the state zoning enabling act,⁷ largely relying on the theory that residential uses were "the highest use to which land can be put" such that excluding them from industrial zones did not serve to prevent any harm.⁸ These opinions (unsurprisingly) overlooked the insight later captured by Ronald Coase that all nuisances are jointly caused by plaintiff and defendant,⁹ although some of them acknowledged in dicta that municipalities could protect industry from the threat of nuisance suits by excluding residential uses from industrially zoned districts.¹⁰ It was not until 1956 that the California Court of Appeals upheld noncumulative zones. However, even the *Roney v Board of Supervisors of Contra Costa County*¹¹ decision relied on the idea that residential uses needed to be protected from industry and not vice versa: the court found that exclusion of residential uses from heavy industry zones in Contra Costa County prevented the "decline

⁶ *Id.* at 388.

⁷ See, for example, *Corthouts v Town of Newington*, 99 A2d 112, 115 (Conn 1953) (holding unconstitutional a zoning ordinance that fails to serve state welfare in banning housing in an area not currently needed for industrial purposes); *Comer v City of Dearborn*, 70 NW2d 813, 816–17 (Mich 1955) (holding that building a motel in an industrial area could not be stopped because the motel would not cause injury to the those near it and those around the motel would likewise cause no injury to the motel or its occupants); *Katobimar Realty Co v Webster*, 118 A2d 824, 831 (NJ 1955) (holding that an ordinance restricting a shopping center from being built in an area zoned for light industry was arbitrary and thus invalid because retail commercial use and light industry were not incongruous uses of land and the exclusion had no bearing on public welfare); *Depew v Township of Hillsborough*, decided together with *Kozesnik v Township of Montgomery*, 131 A2d 1, 12–13 (NJ 1957) (striking down a zoning ordinance that allowed for quarrying but required the quarry to maintain a buffer zone only as to neighboring dwellings and not as to unimproved neighboring parcels because such an ordinance is arbitrary and incongruous in recognizing the potential nuisance the quarry represents but expressly denying protection to some neighboring properties). But see *Roney v Board of Supervisors of Contra Costa County*, 292 P2d 529, 532 (Cal App 1956) (upholding a noncumulative ordinance).

⁸ See, for example, *Corthouts*, 99 A2d at 114.

⁹ R.H. Coase, *The Problem of Social Cost*, 3 J L & Econ 1, 2 (1960).

¹⁰ See *Depew*, 131 A2d at 9.

¹¹ 292 P2d 529 (Cal App 1956).

of new residential districts into blighted areas by their being surrounded by heavy industry” and protected the housing supply generally “by removing residences from fumes.”¹²

This focus on protecting residences from industrial uses began to change in New York City when Robert Wagner began a campaign to revise New York’s zoning resolution between 1947 and 1961. Unlike the state court opinions that justified such exclusion largely in terms of protecting residential uses from the fumes and noise of industry, the studies commissioned by Wagner and his appointees argued that industrial uses were threatened by housing and that the city needed to safeguard its industrial future by reserving land exclusively for the former. As the Board of Estimate of the City of New York declared in 1960 when endorsing the Wagner-sponsored reports: “Placing industry on the bottom of the zoning priority pyramid has created a situation in which prime industrial land in the city has been wasted and preempted by spotty and inappropriate residential and commercial development.”¹³ After a decade of protracted political struggle,¹⁴ Wagner got his wish when the city council enacted the 1961 Zoning Resolution¹⁵ that provided, for the first time, noncumulative manufacturing zones in New York City.¹⁶

What had changed by the early 1960s that would make more compelling these calls to protect industry from residential uses? Between 1955 and 1965, New York’s industry had been devastated by a revolution in transportation that deprived cities of their comparative advantage in attracting and retaining manufacturing. At the center of

¹² Id at 532.

¹³ Journal of Proceedings, Board of Estimate of the City of New York, 15581, 15582 (1960) (“1960 Proceedings”).

¹⁴ The revision commenced when Robert Wagner was appointed chair of the Planning Commission in 1947. Noncumulative zoning was the centerpiece of the revisions proposed by Wagner’s Commission in the 1950 study produced by Harrison, Ballard & Allen, the firm that Wagner hired as a consultant. See generally Harrison, Ballard, & Allen, *Plan for Rezoning the City of New York: A Report to the New York City Planning Commission* (Oct 1950). Although Robert Moses’s opposition insured that the Planning Commission did not act on the Harrison, Ballard, & Allen study, see Robert Caro, *The Power Broker: Robert Moses and the Fall of New York* 792–94 (Knopf 1974), Wagner’s election as mayor in 1953 insured that noncumulative zoning would be placed back on the city’s agenda. James Felt, Wagner’s appointee as chair of the Planning Commission, commissioned a second study that, like the Harrison, Ballard, & Allen study, recommended the creation of exclusive manufacturing zones. See Voorhees, Walker, Smith, & Smith, *Zoning New York City: Proposal for a Zoning Resolution*, Report to the New York City Planning Commission 176–227 (Aug 12, 1958).

¹⁵ See New York City Department of City Planning, *The Zoning Regulation of the City of New York* (Dec 15, 1961) online at http://www.nyc.gov/html/dcp/pdf/zone/zoning_maps_and_resolution_1961.pdf (visited Nov 8, 2009).

¹⁶ Id at 182.

this revolution was the creation of an interstate highway system and the “container revolution” integrating the shipment of goods in a single metal box across rail, trucking, and shipping.¹⁷ Radically reducing shipping costs, this transportation revolution eliminated most of the advantage of locating factories in immediate proximity to Brooklyn’s piers. By 1965, New York City had lost much of its maritime shipping business to New Jersey, and factories had deserted Bay Ridge and Sunset Park in droves: New York’s waterfront had been reduced to derelict shambles, and the city’s industrial job base had suffered staggering losses.¹⁸

Responding to pressure from manufacturers and unions, New York’s and other big cities’ politicians pressed for incentives to keep manufacturing enterprises in the city.¹⁹ For the first time, urban planners and planning-oriented economists during the 1960s were urging cities to adopt noncumulative zones not as a solution to nuisance-blighted homes but rather as an aid to priced-out factories.²⁰ New York’s 1961 move to noncumulative zoning has been matched by other large cities’ efforts to attract or retain industry. The names and details of these zoning schemes differ (Chicago calls them “planned manufacturing districts,” San Francisco calls them “industrial protection zones,” and Los Angeles, “industrial business zones”). The zoning restrictions are sometimes accompanied by various forms of subsidies such as bonding secured with tax-increment districts, use valuation for property taxation, tax credits, and job training grants.²¹ But the essential feature of the zoning part of industrial retention is identical across cities: cities reduce the burdens on urban industry by excluding competing nonindustrial uses in industrial zones. It is now a fairly ordinary theme of urban planners and big city politicians that cities should

¹⁷ In 1955, Robert Meyner, New Jersey’s governor, announced that, in collaboration with the New York Port Authority, New Jersey would sponsor the creation of a massive 450-acre container port facility in Port Elizabeth. Rejecting the Port Authority’s offer to take over the city’s dock facilities, New York City tried to fight back with improvements of its own port terminal facilities in Bay Ridge, Sunset Park, and Red Hook, but to no avail: the city’s snarled transportation network (in which trucks would have to battle Holland and Lincoln Tunnel traffic) and lack of railheads prevented any city-side piers from being competitive with New Jersey’s. It did not help that New Jersey designed its facilities with container shipping in mind, while New York cleaved to the state-of-the-art technology for break-bulk cargo. See Marc Levinson, *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger* 76–100 (Princeton 2006).

¹⁸ See *id.* at 96–97.

¹⁹ See *id.* at 191–96.

²⁰ See, for example, William M. Shenkel, *The Economic Consequences of Industrial Zoning*, 40 *Land Econ* 255, 264–65 (1964).

²¹ See, for example, New York City Industrial Development Agency, *Industrial Incentive Program* (2009), online at <http://www.nycedc.com/FinancingIncentives/Financing/IndustrialIncentProg/Pages/IndustrialIncentiveProgram.aspx> (visited Nov 8, 2009).

create zones that will prevent manufacturing from being ousted by “gentrifying” residential uses.²²

Two arguments dominate this defense of noncumulative industrial zoning. First, both planners and industrial users of urban land complain that intruding residential uses threaten industrial uses with complaints about noise, smell, or traffic. As Robert J. Hughes, the owner of Erie Basin Bargeport, the city’s largest barge operator, stated in explaining his opposition to luxury waterfront condos in Red Hook, Brooklyn: “The first thing luxury condo owners will do is ‘sue us.’”²³ As noted above, this justification has been prominent in judicial opinions upholding noncumulative zones since 1956, and it remains the exclusive justification offered by the New York City Planning Department’s website.²⁴

Second, manufacturers and unions worry that residential users will bid up the price of land, causing landowners to hike rents on industrial users who will respond by fleeing to the suburbs.²⁵ The transportation revolution increased the elasticity of demand for industrial land so much that cities can no longer hope to retain manufacturing enterprises simply by offering proximity to customers or suppliers.²⁶ By excluding residential (and, less frequently, even office and com-

²² See, for example, Pratt Center for Community Development, *Protecting New York’s Threatened Manufacturing Space* (April 16, 2009), online at <http://prattcenter.net/sites/default/files/publications/Threatened%20Manufacturing.pdf> (visited Nov 8, 2009); Laura Wolf-Powers, *Up-Zoning New York City’s Mixed-Use Neighborhoods: Property-Led Economic Development and the Anatomy of a Planning Dilemma*, 24 *J Planning Educ & Rsrch* 379, 389–90 (2005); Adam Friedman, *Zoning to Protect Manufacturing*, *Gotham Gazette* (Apr 2003), online at <http://www.gothamgazette.com/article/landuse/20030422/12/358> (visited Nov 8, 2009).

²³ Julia Vitullo-Martin, *The Battle of Red Hook*, *NY Sun Arts & Letters* 13 (Apr 13, 2006).

²⁴ The Planning Department’s “overview” of manufacturing districts explains that “[t]he 1961 Zoning Resolution separated industrial and residential areas to insulate residential communities from industrial traffic and other irritants, and to shield industry from nuisance-generated complaints.” NY City Department of City Planning, *Overview of Manufacturing Districts* (New York City Zoning Reference 2009), online at http://www.nyc.gov/html/dcp/html/zone/zh_manudistricts.shtml (visited Nov 8, 2009). The website is silent about reducing the cost of land for manufacturing by zoning out competition.

²⁵ See Shenkel, 40 *Land Econ* at 263 (cited in note 20) (discussing the rising cost of land for industry given residential or commercial uses of property in industrial areas); Nat Ives, *Zone Defense: Manufacturers Are Demanding an Eye for an Eye, a Factory for an Office Building*, *City Limits Magazine* (June 2001), online at http://www.citylimits.org/content/articles/viewarticle.cfm?article_id=2054 (visited Nov 8, 2009) (describing worries of a Long Island furniture factory operator that rezoning to residential will cause rents to bump up in Long Island City and demanding down-zoning to manufacturing of the surrounding area).

²⁶ Edward L. Glaeser, *Cities, Agglomeration and Spatial Equilibrium* 7 (Oxford 2008); Douglas Rae, *City: Urbanism and Its End* 361–63 (Yale 2003).

mercial uses), the central city can provide an in-kind subsidy of cheaper land to manufacturers as a bribe to get them to locate or expand in the city.

Such exclusively industrial zoning has potentially large costs. Land zoned for nonresidential uses could be an important source of residential housing. In 2005, the City of New York zoned 22,500 acres of land exclusively for manufacturing uses: developed at even a small fraction of Brooklyn's average density of fifty-five dwelling units per acre, this land could provide thousands of units of housing in a city with a notorious shortage of residential units.²⁷ Of course, there is no way to easily calculate how much of this land would actually be used for residential uses if zoning were cumulative, but there is anecdotal evidence of high demand for industrially zoned land among residential users. In the 1930s, fully half of all New Yorkers lived in nonresidential zones,²⁸ and, even under the post-1961 regime of noncumulative zoning, manufacturing zones accommodate a large number of residential units—so many, in fact, that the city's crackdown on illegal conversions of manufacturing units to residential use was impeded by the threat of leaving hundreds of tenants stranded.²⁹

II. AN ANALYSIS OF THE TWO DOMINANT RATIONALES FOR PROTECTING INDUSTRY WITH NONCUMULATIVE ZONING

It is not self-evident that keeping manufacturers within cities is a good idea. If transportation and real estate costs are lower in less densely populated areas, then the de-industrialization of cities might

²⁷ Consider Armstrong and Lund, *Up from the Ruins: Why Rezoning New York City's Manufacturing Areas for Housing Makes Sense*, 2 Rethinking Develop Rep at *iii (cited in note 4).

²⁸ Harrison, Ballard, & Allen, *Plan for Rezoning* at 4, 90 (cited in note 14). Robert Wagner commissioned the Harrison, Ballard, & Allen study in 1947, when he was chair of the planning commission. See note 14.

²⁹ These residential units consist of nonconforming uses, illegal occupants, and users who managed to induce the city to legalize their occupancy through prolonged squatting. The oddest subgroup of this last category are persons certified to be "artists" under the Multiple Dwelling Law, see NY Mult Dwell Law §§ 275–76 (McKinney), who managed to legalize their illegal occupancy of SoHo/NoHo lofts during the 1970s and now can maintain their occupancy only after being certified by the Department of Cultural Affairs as genuine artists. See Nadine Brozan, *In a Changed SoHo, Legal Penitence*, NY Times sec 11 at 1 (June 8, 2003); New York City Department of Cultural Affairs, *Notice to Applicants Re: Artist Certification* (2009), online at http://www.nyc.gov/html/dcla/downloads/pdf/artist_certification.pdf (visited Nov 8, 2009). In 2005, after the Bloomberg administration attempted to crack down on illegal conversions of buildings zoned for manufacturing to residential uses, enforcement efforts left hundreds of tenants on the street. See Matthew Sollars, *Manufacturers Aren't Running Away: Steady Real Estate Prices, Fewer Conversions Keep Industry in the City*, 25 Crain's NY Bus 17 (May 18, 2009).

be a boon rather than a bane. In what follows, we adopt what Timothy Bartik has called the “market failure” perspective on the problem of urban industrial uses: we try to define the circumstances under which markets in land might fail to reflect the socially optimal amount of industry in urban areas.³⁰

There is a theoretically plausible story to tell in which cities subsidizing industrial retention or relocation would be a sensible strategy, both from the city’s and the larger social perspective. This story, however, depends on the ability of a city to identify specific industrial and commercial uses that will create increasing returns. We argue that noncumulative zoning is likely to be too inflexible and indiscriminate to identify these uses, and we suggest that a “regulatory compliance” defense and tax or grant subsidies would be better mechanisms for industrial retention if, in fact, such retention is advisable. Further, we argue that the political costs of noncumulative zoning are particularly harmful. Because it is in-kind and not cash, the subsidy provided by noncumulative zoning does not have to compete in the annual budgeting process with other possible uses of public money like schools, roads, or general tax cuts, and, therefore, there is no political or interest group competition to determine whether industrial retention is the best way for the city to spend scarce public resources.

A. Using Noncumulative Zones to Stop Nuisance Complaints: Why Not Just Use a “Regulatory Compliance” Defense?

The least controversial “market failure” for which exclusive industrial zones might be a plausible remedy is the problem of nuisance. On this view, residential users will inefficiently drive out industrial neighbors by complaining about nuisance costs such as noise, fumes, or traffic. If an industrial landowner could somehow purchase, lease, or buy easements for all of the land within ear- or noise-shot of their industrial facility, they could protect themselves from nuisance lawsuits (or analogous administrative complaints). But transaction costs predictably foil the effort to buy out a multitude of ill-identified potential plaintiffs in a densely populated urban area. Excluding residential uses, therefore, seems to recognize the basic Coasean point that all nuisances are jointly caused by the active user and the quiet enjoyer. The conflict can be solved just as easily by requiring the latter to keep out as by requiring the former to stop making noise, fumes, dust, or traffic.

³⁰ See Timothy Bartik, *The Market Failure Approach to Regional Economic Development Policy*, 4 *Econ Dev Q* 361, 361–62 (1990).

The obvious difficulty with this “nuisance” rationale for noncumulative zones, however, is suggested by the analogy to the “coming to the nuisance” defense in tort law that serves the same nuisance-suppressing function.³¹ However, there is a crucial difference: unlike the noncumulative zone, the common law defense does not exclude residential uses, but simply gives their neighbors a defense against lawsuits. Why not, then, allow residential users to occupy land in manufacturing zones, but give industrial users a defense of regulatory compliance against any nuisance or analogous lawsuits that might otherwise be applicable? If residential users prefer the grit and noise of industrial neighbors to residential alternatives, then excluding them from manufacturing zones entirely would seem to impose an unnecessary deadweight cost on persons deprived of what might be their best available housing opportunities.

There is plenty of precedent for such a regulatory compliance defense to protect active users from quiet enjoyers. In particular, many states have passed “right-to-farm” laws that give existing farms a right to continue defined farming activities against nuisance complaints about the obnoxious side effects.³² Why not create right-to-stink laws that serve an analogous function for industry? Or why not let owners of land in noncumulatively zoned areas build residential housing in return for agreeing not to file nuisance suits?

One difficulty with right-to-farm legislation is that such statutes typically protect only existing uses from nuisance complaints.³³ It is a common complaint of industrial users that the presence of residences prevents their expansion as well as continuation. To the extent that one wanted to protect prospective industrial uses from existing residential users’ complaints, then one would need a full defense of regulatory compliance, under which current *or future* uses consistent with the manufacturing zone’s use schedule would be exempt from liability even if they arose after the plaintiff or complainant purchased within the zone.³⁴

³¹ See Donald Wittman, *First Come, First Served: An Economic Analysis of “Coming to the Nuisance,”* 9 J Legal Stud 557, 557–58 (1980). Under the Restatement (Second) of Torts, the fact that an owner of a neighboring tract of land purchased the land after the uses that constitute the nuisance began is not an absolute defense to a tort action, but rather “is a factor to be considered in determining whether the nuisance is actionable.” Restatement (Second) of Torts § 840D (1977).

³² See Terence C. Centner, *Governments and Unconstitutional Takings: When Do Right-to-Farm Laws Go Too Far?*, 33 BC Envir Affairs L Rev 87, 95–101 (2006).

³³ See *Swedenberg v Phillips*, 562 So 2d 170, 172–73 (Ala 1990) (concluding the right-to-farm law did not apply because plaintiffs resided on their property prior to construction of the defendant’s chicken house).

³⁴ There is an interesting question of whether the prospect of elimination of nuisance liability for future noxious uses would constitute a taking of the residential user’s property. See,

Such a strong defense of regulatory compliance, in which a lot that is vacant or residential could be converted into a smoke-spewing smelter, places a heavy burden on potential residential users to research and insure against changes in the use of nearby land, either through on-site precautions (for example, triple-pane windows) or simply taking a short-term lease rather than a fee simple interest. Manufacturing zones that form the basis for a regulatory compliance defense, therefore, might need more detailed specifications of permissible uses, including emissions and decibel levels to serve as notification for housing consumers.

Of course, a state-law defense of regulatory compliance would not eliminate *federally* protected rights to be free from proximate noxious uses. But the same considerations that counsel in favor of a state-law defense also suggest that there ought to be limits to federal liability. One could, for instance, imagine a Title VI lawsuit by minority residents of a cumulatively zoned industrial district complaining about the concentration of industrial uses in their neighborhood.³⁵ If the land were zoned for manufacturing when those residents purchased or rented their units, however, then barring the lawsuit with a regulatory compliance defense might be the most sensible result to preserve a variety of residential opportunities at reasonable cost. After all, urban industry is more beneficial to low-income households if it is closely integrated with existing housing and retail. (Fenced-off and isolated industrial parks like the Bathgate Industrial Park in the South Bronx are less likely to employ local residents, which is one of the primary rationales for inducing industry to invest in the city in the first place.³⁶) The price of such investment is that the noise and smells of factories ought not to be the basis for barring residential uses absent a health risk that consumers would ordinarily be barred from assuming.

for example, *Gacke v Pork Xtra*, 684 NW2d 168, 173–74 (Iowa 2004) (determining that the court was not incorrect in applying a per se takings analysis to the nuisance question); *Bormann v Board of Supervisors*, 584 NW2d 309, 321 (Iowa 1998). If the municipality could zone land non-cumulatively for industry and exclude residential uses altogether, however, then it is difficult to see why the municipality could not take the lesser step of permitting residential uses only on the waiver of their rights to seek recovery for nuisance.

³⁵ See National Academy of Public Administration, *Addressing Community Concerns: How Environmental Justice Relates to Land Use Planning and Zoning* 178–79 (July 2003) (noting that the City of Chicago’s commitment to “economic development in Southeast Chicago” could exacerbate “the health and environmental threats that area residents already face”).

³⁶ See Robert Lane, *The Machine Next Door*, 10 *Places* 10, 17–19 (1995) (noting that large buffers, parking spaces, and other density-reducing measures that protect nearby housing projects from noise also isolate them from the industrial park).

Whether considered as a defense to state-law nuisance lawsuits or federal statutory claims, the proposed “right-to-stink” defense might fall outside of the legislative power of many municipalities. In general, cities do not have the right to create defenses to state tort laws.³⁷ The state judiciary, however, could construe the common law of nuisance to include a strong regulatory compliance defense, and federal courts could construe the vague terms of Title VI to encompass such a defense.³⁸ Even if such a defense requires authorization through amendment of the state zoning enabling act, however, this necessity is only an argument that a city should condition elimination of noncumulative zoning on the passage of such state authorization. Further, it is possible such a defense could be accomplished through contract or negotiations over exempting specific land uses from the strictures of a noncumulative zoning regime.

B. Reducing the Price of Urban Land for Manufacturing: Why Non-cumulative Zones Are Too Indiscriminate, Inflexible, and Invisible to Be a Rational Subsidy for Industry

The major justification for exclusion of residential uses from manufacturing zones is less concerned with prevention of nuisance litigation than with stabilization of land prices. In purpose and effect, noncumulative zoning is a subsidy to draw manufacturing enterprises to the city—it reduces the cost of manufacturing land in the city, and, thereby, is a subsidy to new manufacturing entrants.

Does it ever make sense to influence the location of industry with such subsidies? Referencing some literature on urban economics and agglomeration economies, we argue that such subsidies theoretically can make sense in certain circumstances, both from the city’s point of view and social welfare more generally. However, noncumulative zoning does not seem well suited for delivering such subsidies when com-

³⁷ Richard Briffault and Laurie Reynolds, *State and Local Government Law* 309–10 (West 6th ed 2001).

³⁸ Consider Title VI of the Civil Rights Act of 1964 (“Title VI”), Pub L No 88-352, 78 Stat 253, codified at 42 USC § 2000(e) et seq (“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”); *Regents of the University of California v Bakke*, 438 US 265, 328 (1978) (construing racial discrimination under Title VI to include only those racial classifications that would be proscribed under the Equal Protection Clause of the Fourteenth Amendment); *Hodges v Public Building Commission of Chicago*, 873 F Supp 128, 132 (ND Ill 1995) (holding that a city is not a “program or activity” for purposes of Title VI, such that the action against the city’s department of planning and development, which allegedly engaged in discrimination in violation of Title VI, must fail).

pared to outright grants or tax subsidies. In particular, noncumulative zones are so indiscriminate, inflexible, and politically invisible that the deadweight costs imposed on residential users are likely to outweigh the benefits to the city's economy.

1. Does it ever make sense to subsidize industry's retention in urban areas?

a) *The Tiebout-based argument against subsidies.* The basic argument against urban subsidies relies on a relatively simple collective action story. George Zodrow and Peter Mieszkowski, among others, have argued that tax competition for mobile firms leads to an inefficiently low level of local taxes and services.³⁹ When setting tax rates, localities will take into account that an increase in taxes will drive away firms. As this will be the case for all cities—the models explicitly assume that all cities are the same—taxes will be set at a lower level than is socially optimal.⁴⁰ Tax incentives for specific firms exacerbate the problems of tax competition, as they are a particularly pernicious version of the generalized story. If mobile capital generally can take advantage of the collective action problems facing cities to earn rents, the ability of individually mobile firms to demand subsidies is like giving mobile capital as a class the ability to price discriminate.

Arguments based on the well-known Tiebout model come to a similar conclusion from very different priors.⁴¹ In the Tiebout model, tax competition is generally good—firms and individuals sort to those local governments in which the cost of taxation equals the benefits of services to them.⁴² However, in the model, tax breaks or subsidies to individual firms could not occur, as any effort to tax Peter to hand out to pay Paul will result in Peter skipping town. If there is sufficient inefficiency in the market for location (say, transaction costs), individua-

³⁹ George R. Zodrow and Peter Mieszkowski, *Pigou, Tiebout, Property Taxation, and the Underprovision of Local Public Goods*, 19 J Urban Econ 356, 368–69 (1986).

⁴⁰ See Wallace E. Oates and Robert M. Schwab, *Economic Competition among Jurisdictions; Efficiency Enhancing or Distortion Inducing?*, 35 J Public Econ 333, 335 (1988); Zodrow and Mieszkowski, 19 J Urban Econ at 359 (cited in note 39).

⁴¹ See generally Oates and Schwab, 35 J Public Econ 333 (cited in note 40). The big difference between these models is how they understand the way capital is taxed. In the Zodrow-Mieszkowski model, there are two types of taxes—general head taxes on all individuals and a tax rate on capital. In the Oates-Schwab model, all property taxes—including taxes on capital—are treated as if they were head taxes. This implicitly relies on an assumption that zoning can be used to tie the level of capital to the level of public services. Compare Zodrow and Mieszkowski, 19 J Urban Econ at 357 n 1 (cited in note 39) with Oates and Schwab, 35 J Public Econ at 342–43 (cited in note 40).

⁴² See Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J Polit Econ 416, 417 (1956).

lized subsidies will result in a loss for all taxed firms and movement away from the efficient allocation of taxes and services.

In both of these literatures, subsidies to mobile firms will always be socially bad, and because they assume that all cities are identical, they will be bad for each city. However, if cities differ and firms provide city-specific externalities, there can be an economic case for local subsidies.

b) *The agglomeration-based argument for subsidies.* The Tiebout model literature works from two assumptions that effectively foreclose the arguments in favor of industrial subsidies. First, the model assumes that individuals and firms are merely consumers of local services, and, second, it assumes that all cities are the same.⁴³ Any economic case for subsidies must be built around entirely opposite assumptions—that is, that firms are not necessarily only consumers of services, but instead can produce positive externalities and that cities are different from one another in the degree to which they can capture these externalities.

In their efforts to explain why cities develop, economists have developed a voluminous literature usually called “agglomeration economics” or the “New Economic Geography.”⁴⁴ This literature argues that individuals and firms locate near others because of the external benefits of physical proximity. Specifically, they have identified three major reasons why firms and individuals cluster in cities: (1) to reduce shipping costs for goods; (2) to access deep markets (particularly labor markets, but also consumption and social markets), which provide more specialized services and employers, insurance against firm- or industry-specific risk, and quick matching; and (3) for information spillovers between firms and individuals, either inside an industry or between industries, that promote both increased production and the development of human capital over time.⁴⁵ Some of these forces are regional, like labor markets in which people can commute from any-

⁴³ See *id.* at 423.

⁴⁴ For the clearest summaries of this work by the leading figures in the field, see Glaeser, *Cities, Agglomeration and Spatial Equilibrium* at 1–11 (cited in note 26) (describing urban economics and agglomeration economies, which exist whenever people become more productive because of proximity to others); Masahisa Fujita, Paul Krugman, and Anthony J. Venables, *The Spatial Economy: Cities, Regions, and International Trade* 1–6 (MIT Press 1999); Edward L. Glaeser, *Are Cities Dying?*, 12 *J Econ Persp* 139, 157 (1998). For a more complete treatment of the relationship among agglomeration economics, the Tiebout model, and local government law, see David Schleicher, *The City as a Law and Economic Subject*, 2010 *U Ill L Rev* *2–48 (forthcoming), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1471555 (visited Nov 8, 2009).

⁴⁵ See Glaeser, *Spatial Equilibrium* at 6–8 (cited in note 44).

where in a region. Others, however, are highly local, like information spillovers that depend on personal interactions among land users.

Merely permitting the market for property to work might lead to too little clustering of firms in cities because individual firms will fail to take into account the positive effect they have on other firms and individuals. Giving cities the ability to engage in non-firm specific tax and policy competition can also result in less clustering of firms to the extent that cities have incentives to engage in restrictive zoning for the sole purpose of reducing the average costs of providing local public goods, because people and firms may move away from the best location from the point of view of agglomeration economies in order to obtain their desired set of city services. (For example, if New York brokers move to several different suburbs to get different packages of public services, then they might be less productive because they will have fewer chances to interact with other financial wizards and thereby reap agglomeration economies in information.⁴⁶) The core case for industrial subsidies follows ordinary Pigouvian principles for subsidizing beneficial spillovers: cities that derive special spillover benefits from particular firms or industries should subsidize those firms or industries until private costs are reduced to the point where they make the socially optimal decision.⁴⁷

But this general insight hides a knotty empirical problem: determining whether a firm's decision to locate in the city will present a sufficient positive externality to justify a subsidy requires a determination that the size of the externality will be higher than the various deadweight costs imposed by taxation. Taxation at the local governmental level produces two distinct sorts of deadweight losses. Aside from the ordinary excess burden caused by taxation's distorting effect on consumption or production, local taxes also influence residential choices. Unless the tax is effectively a benefits charge paid exclusively by those who receive the external benefit of the subsidy, increases in

⁴⁶ See Schleicher, 2010 U Ill L Rev at *6 (cited in note 44).

⁴⁷ See Teresa Garcia-Milà and Therese J. McGuire, *Tax Incentives and the City* 95, 103–04 (Brookings-Wharton Papers on Urban Affairs, 2002). Teresa Garcia-Milà and Therese McGuire have shown that, as a theoretical matter, local subsidies or tax breaks can be wealth creating (both for the city and for society) if the tax breaks are designed to lure firms that generate externalities that can be captured by the city's economy to a greater degree than they can be captured in other locations. Id at 114. By virtue of an example, Garcia-Milà and McGuire note that city subsidies do not seem to accomplish this even if it is theoretically possible. Id (identifying as an example Chicago's attempt to bring Boeing headquarters to the city through tax breaks and other incentives while simultaneously declining to attempt to retain a Brach's manufacturing plant in the city).

taxation may (on the margin) cause some residents to exit to other locations.⁴⁸ And individual residents can create agglomeration spillovers just as readily as industry—city residents participate in local labor markets, provide intellectual spillovers, and so on. If artists, actors, financial wizards, writers, or other creative types are driven out of the city because of high tax burdens, then the agglomeration economies that they generate by hanging out at cafés and exchanging ideas will be lost.

Thus, for a subsidy to be justified for a given city, the external benefits provided by the subsidized firm must be greater than (a) the sum of the cost to existing residents of local taxation (in, say, changing their consumption patterns or labor market participation in inefficient ways) and (b) the loss of external benefits generated by those who are priced out of the city by taxation. This formula implies that industrial subsidies are justified from the city's perspective only if the industrial tenant thus gained or retained will be a far better generator of beneficial spillovers than whomever they displace.

Such a formula suggests that the mechanism for providing industrial subsidies should not be indiscriminate or inflexible. Policies that provide subsidies to crudely defined categories of industry are unlikely to distinguish between industries that generate net benefits after the cost of the subsidies is taken into account. Take, for example, intellectual spillovers, which are commonly cited as the most prominent agglomeration benefit of dense industrial concentration.⁴⁹ Cities are said to foster a “creative class” precisely because their density allows persons who benefit from intellectual spillovers to interact frequently and informally.⁵⁰ It is, however, difficult to determine which mix of firms—whether diverse or homogenous—or which type of firms generates intellectual spillovers.⁵¹ But there is little doubt that subsidizing industry in general, rather than industries with particular characteristics (such as investments of high levels of human capital, which is tied to the degree of spillovers, or known high degrees of intellectual fer-

⁴⁸ Agglomeration economies limit the degree to which taxes generate exit, but do not eliminate it. See Schleicher, 2010 U Ill L Rev at *37–51 (cited in note 44); Clayton P. Gillette, *Local Redistribution, Living Wage Ordinances and Judicial Intervention*, 101 Nw U L Rev 1057, 1081–85 (2007).

⁴⁹ See Glaeser, 12 J Econ Persp at 147–48 (cited in note 44).

⁵⁰ See Edward L. Glaeser and David C. Maré, *Cities and Skills*, 19 J Labor Econ 316, 340 (2001); Richard Florida, *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life* 214–22 (Basic Books 2002) (arguing that the economy clusters where creative people cluster to take advantage of creative capital).

⁵¹ Compare Edward L. Glaeser, et al, *Growth in Cities*, 100 J Polit Econ 1126, 1150–51 (1992) (noting competing theories of spillovers and determining that diversity-based theories perform better) with Vernon Henderson, *Marshall's Scale Economies*, 53 J Urban Econ 1, 21–23 (2003) (noting that industry clusters produce more spillovers).

ment⁵²) is a waste of money. Obvious examples of industries in which the workers benefit from interaction might be the movie, software, publishing, and education industries. Or perhaps subsidies should be given to small businesses, which Jane Jacobs suggested generate more new innovations than large lumbering firms.⁵³ There are manufacturing jobs that also require high human capital investments with high degrees of spillover, and small manufacturers as well.⁵⁴ No one, however, has made the case that manufacturing in general automatically generates spillover benefits in excess of the costs of subsidies necessary to keep such jobs in the city.

The same argument can be made for increasing the labor market size. There are spillover benefits from labor market depth, but manufacturing industries do not indiscriminately generate such benefits. Deep labor markets provide gains from specialization and insurance. Deep labor markets also provide labor with insurance against firm- or industry-specific risk. If a single firm or field in a big city does badly, an individual who works there can get another job without relocating.⁵⁵ Further, deep labor markets have lower search costs for both firms and individuals, as it is easier to find the proper labor (or firm) if there are many choices. This has dynamic effects as well. Increased localization creates incentives for labor to invest in human capital, as they can be sure these investments will not be wasted.⁵⁶

⁵² See generally Edward L. Glaeser and Albert Saiz, *The Rise of the Skilled City* 47 (Brookings-Wharton Papers on Urban Affairs, 2004).

⁵³ See Jane Jacobs, *The Economy of Cities* 86–99 (Random House 1969) (arguing that cities with lots of small firms were more innovative than industrial centers).

⁵⁴ See Robert Lucas, *On the Mechanics of Economic Development*, 22 *J Monetary Econ* 3, 40 (1988):

New York City's garment district, financial district, diamond district, advertising district and many more are as much intellectual centers as is Columbia or New York University. The specific ideas exchanged in these centers differ, of course, from those exchanged in academic circles, but the process is much the same. . . . A collection of people doing pretty much the same thing, each emphasizing his own originality and uniqueness.

Consider the fashion industry. New York City is considering removing zoning restrictions in the garment district in favor of direct subsidies to garment producers (by designating specific building which are devoted exclusively to garment production) on the grounds that they provide spillovers to the garment design industry. Charles V. Bagli, *New York Seeks to Shore up Factories in Its Shrinking Garment District*, *NY Times* A20 (Aug 20, 2009). While we have not explored the economics of this case specifically, this is at the very least theorized in a far smarter way than ordinary noncumulative zoning subsidy proposals.

⁵⁵ See Glaeser, 12 *J Econ Persp* at 146 (cited in note 44).

⁵⁶ For a model explaining urban agglomeration as a function of the interaction between search costs and investments in human and physical capital, see Daron Acemoglu, *A Microfoundation for Social Increasing Returns in Human Capital Accumulation*, 111 *Q J Econ* 779, 780–81 (1996).

To the extent labor is not fungible across industries, labor market depth might provide an argument for subsidizing industries that are already large in any given urban area.⁵⁷ By having more firms in these industries, there will be more labor demanded, more specialization, and greater insurance against firm-specific risk (although less against industry-specific risk). But this argument does not support indiscriminate manufacturing subsidies in most cities because manufacturing has substantially left most urban areas. Instead, the argument for labor-market depth provides an argument for subsidizing certain classes of industry in which cities are already strong, thereby retaining labor market depth and preserving the market's quality and specialization. Cities certainly engage in this type of subsidy policy. For instance, New York City granted Broadway theater companies a subsidy by allowing them to sell the air rights above their theaters to developers.⁵⁸ Spraying dollars indiscriminately at the manufacturing sector, however, seems intuitively an implausible way to preserve labor market depth. One might as well deepen the labor market by simply attracting all sorts of businesses through generally lower taxes.

Finally, the traditional arguments for concentrating industry in urban areas—reduction in transportation costs—seems increasingly implausible as a justification for manufacturing subsidies. If there are some increasing returns to firm size and real transportation costs, manufacturing firms may locate in the same city to avoid paying for intercity shipping.⁵⁹ However, the importance of this as a force for agglomeration has fallen, as intercity transport costs have fallen dramatically in the last fifty years.⁶⁰ It barely costs anything to ship, say, lug nuts, and so the value to other firms of having locally sourced lug nuts is now very low. As a result, it is hard to imagine a justification for urban industrial subsidies on the basis of reducing transport costs. The

⁵⁷ This assumes there will be increasing returns to market size. The extent of these increasing returns might taper off at some point—going from a few generalists to a number of specialists may provide large benefits, but going from a field with many specialized workers to a field with many superspecialized workers may not provide the same size of gains. Or it might provide bigger gains. Of course, this is a difficult to impossible thing to determine, but doing so is the only way to make labor-market-depth targeted subsidies work.

⁵⁸ See Patrick McGeehan, *Theaters See a Lifeline above as Developers Pursue Midtown Opportunities*, NY Times A23 (July 6, 2008).

⁵⁹ See Schleicher, 2010 U Ill L Rev at *14–19 (cited in note 44).

⁶⁰ See Glaeser, *Spatial Equilibrium* at 7–8 (cited in note 44); Edward L. Glaeser and Giacomo A.M. Ponzetto, *Did the Death of Distance Hurt Detroit and Help New York?* *5–7 (National Bureau of Economic Research Working Paper No 13710, Dec 2007), online at <http://www.nber.org/papers/w13710> (visited Nov 8, 2009) (reporting that the cost of moving one ton of goods one mile by rail has decreased by 90 percent over the last 120 years).

same can be said for increasing the depth of consumption markets: while there is value in having a varied set of consumption opportunities in urban areas, it is unlikely that subsidies for manufacturing will greatly improve the depth of consumption markets. Given the reduction in shipping costs, it is hard to see the value of subsidizing a wide variety of locally produced manufactured goods. People move to New York, for instance, because there are real benefits from being able to choose among a bunch of highly specialized restaurants or bars on a single street. Few are attracted by the prospect of a broad array of choices for locally sourced lug nuts when they can just have them shipped from elsewhere for little cost.⁶¹

2. Comparing noncumulative zones to budget outlays and tax subsidies as methods for subsidizing industrial retention.

Judged by the standards set forth above, noncumulative zoning is a poor way of subsidizing retention of industry in urban areas. Such in-kind land subsidies tend to be too (a) indiscriminate, (b) inflexible, and (c) invisible to be reliably worth the deadweight costs that they are likely to impose.

a) *Noncumulative zoning as an indiscriminate subsidy.* The most obvious flaw with noncumulative zones is that they provide an indiscriminate subsidy to every business falling within the zoning district's schedule of uses. These uses tend to be broadly defined, often including (to the consternation of lobbyists for industrial land) not only industry but also commercial retailing. Even if retailers were excluded, however, manufacturing districts do not make fine distinctions between manufacturing uses based on the quantity and quality of the jobs that they produce. New York City, for instance, has only three manufacturing use districts (light, medium, and heavy) defined by the intensity of noise or pollution produced by the permitted uses.⁶² Although these three categories are subdivided into use groups that variously permit specific commercial uses, the resolution—like other cities' zoning ordinances—provides no way to distinguish (for instance) between a high-wage manufacturer using a highly skilled workforce and a low-wage manufacturer employing very few workers or unskilled nonresidents who commute from the suburbs. This focus

⁶¹ See, for example, Alfred Marshall, *Principles of Economics: An Introductory Volume* (Macmillan 8th ed 1940) (noting that people care more about market size factors like specialization and insurance when purchasing high-end items than when purchasing staples).

⁶² NYC Zoning Res Art IV, § 41-11-13 (defining light, medium, and high manufacturing districts within New York City).

on nuisance costs is a legacy of the traditional nuisance-abating function of zoning, but it ensures that zoning categories are far too crude to discriminate between businesses worth subsidizing and businesses that produce no net gain for local residents. The result is that manufacturing districts contain those underused warehouses, parking lots, and even abandoned buildings on New York's waterfront. Even when such zones produce economically viable uses, there is no guarantee that they will produce the high-wage jobs that their boosters urge as their justification. One study of Chicago's planned manufacturing districts found that planned manufacturing districts did not do much to preserve high-paying manufacturing jobs even when they were occupied by successful commercial businesses.⁶³

The indiscriminate nature of manufacturing zones could be solved by narrowing the number of permissible uses. This, indeed, is the solution urged by New York's Industrial Retention Network, which has urged the creation of industrial zones from which profitable retail uses are excluded.⁶⁴ There are legal obstacles to this. Conventional legal doctrine bars municipalities from regulating land use based on the nature of the user rather than the activity pursued on the parcel, which might limit the ability of these zones to target particular types of firms, like those that pay high wages.⁶⁵

⁶³ See generally Joel Rast, *Curbing Industrial Decline or Thwarting Redevelopment? An Evaluation of Chicago's Clybourn Corridor, Goose Island, and Elston Corridor Planned Manufacturing Districts* (University of Wisconsin-Milwaukee Center for Economic Development, 2005), online at <http://www4.uwm.edu/ced/publications/pmdstudy1.pdf> (visited Nov 8, 2009) (finding that "PMDs continue to provide jobs, but the majority of them are no longer manufacturing jobs").

⁶⁴ See New York Industrial Retention Network, *Industrial Employment Districts* (2009), online at <http://www.nyirn.org/index.cfm?fuseaction=page.viewpage&pageid=756> (visited Nov 8, 2009).

⁶⁵ See *Ohio Valley Orthopedics and Sports Medicine, Inc v Board of Trustees of Sycamore Township*, 816 NE2d 1088, 1091 (Ohio App 2004) ("Township zoning laws regulate the types of uses to which structures and property may be put, not the identity of the user.") (quotation marks and citations omitted); *Maplewood Village Tenants Association v Maplewood Village*, 116 NJ Super 372, 431 (Ct Ch Div 1971) (holding that zoning laws are not implicated when an apartment building owner converts the apartment units into condominiums and sells them to individual owners because the form of ownership and not the use of the land is being affected); *DeSena v Gulde*, 24 AD2d 165, 171 (NY 1965) (overturning a zoning regulation passed in response to community picketing and protesting because zoning laws must focus exclusively on land use and its direct effect on public health and safety); *Metzdorf v Borough of Rumson*, 170 A2d 249, 253 (NJ Super App Div 1961) (holding in the case of a testator who divided up his waterfront property in such a manner that the resulting lots had inadequate water frontage under a local zoning ordinance that the zoning law would not invalidate the devises because the zoning power may reach only the manner in which land is utilized and not its alienability); *Vlahos Realty Company, Inc v Little Boar's Head District*, 146 A2d 257, 260 (NH 1958) (striking down a zoning law that allowed for a nontransferable permit to a specific person to operate an ice cream stand in a residential area because the nontransferable nature of the instrument constituted regulating the type of user and not the use of the land itself); *Abbadessa v The Board of*

Putting aside doctrinal obstacles, however, there is not any reason to believe that manufacturing, rather than commercial or retail uses, is the right category to use to maximize spillovers. Further, it is unlikely that the city could have the confidence to select specific types of enterprises likely to produce, say, human capital spillovers at the risk of leaving a lot vacant for an extended period of time, as unlike cash subsidies, land subsidies require firms that not only want to locate in a city, but want to locate in a specific location.

b) Noncumulative zones as an inflexible subsidy. If landowners could easily obtain map amendments or use variances whenever the existing manufacturing use was, in the judgment of the city, less valuable than a proposed residential use, then the indiscriminate character of zoning districts would not inflict any deadweight cost on housing consumers. Landowners with manufacturing tenants that produced few spillover benefits would simply seek to have their parcel rezoned for residential uses, citing the low-value nature of its current use.

But land use changes, whether administrative or legislative, are costly to obtain. Unlike outright grants of revenue that are regularly reviewed through the budget process, zoning districts remain in place until the planning commission, city council, or private parties propose an amendment or variance. Landowners seeking to change zoning designations face opposition from neighbors who typically oppose any rezoning that increases density or bulk of the existing use. Residential pioneers occupying artists' lofts, nonconforming uses, or specially permitted conversions may also oppose rezoning that does not involve structural alteration out of fear of the escalating real estate values that such rezoning can bring. Opponents of rezoning may also include the tenants of the landowner and their employees as well as rival developers looking to acquire underzoned property cheaply.⁶⁶ The administrative and legislative process by which a map amendment is obtained can be notoriously expensive and protracted.⁶⁷

Zoning Appeals of the City of New Haven, 54 A2d 675, 677 (Conn 1947) ("Zoning is concerned with the use of specific existing buildings and lots, and not primarily with their ownership.").

⁶⁶ As an illustrative example consider New York Water Taxi's opposition to rezoning the Brooklyn waterfront from Manufacturing to Mixed-Use Residential. The New York Water Taxi is owned by Douglas Durst, a legendary land assembler in New York City. See David Samuels, *The Real-Estate Royals: End of the Line?*, NY Times sec 6 at 37 (Aug 10, 1997). As the owner of the land recalls, "I called Douglas up, and said that it made no sense that his company, New York Water Taxi, was fighting the project. But I never got a straight answer, just the party line: We think your buildings should be industrial. But since when is Douglas Durst interested in preserving industrial jobs in Brooklyn?" Vitullo-Martin, *Red Hook*, NY Times at 13 (cited in note 23).

⁶⁷ See Lawrence A. McDermott, *The Rezoning Process*, in Sidney O. Dewberry, ed, *Land Development Handbook, Planning, Engineering, and Surveying* 157, 158 (McGraw-Hill 3d ed 2008).

This is not to say that well-connected and experienced developers cannot pay the freight to alter the zoning where the gap between the value of the existing use and the proposed residential use is extraordinarily high. By greasing the skids with community benefit agreements or providing parks and playgrounds, developers can buy allies in the city council.⁶⁸ But landowners of individual buildings without extensive development experience and connections may not be willing to survive the objections of the neighbors.

The inflexibility of noncumulative zoning comes with an added cost. Because the only way to use noncumulative zoning as a subsidy is by procuring land, it generates inefficient substitution among manufacturers toward the use of more land rather than, say, more efficient machines.⁶⁹ Not only does this provide less benefit to manufacturers than would a direct subsidy, it increases the cost to the city economy. The cost of the noncumulative zoning “tax” will be borne by other potential users of the property—that is, commercial users and residents. To the extent that the supply of housing and office space is limited, any extra space is likely to draw in residents. If these residents generate external returns of their own, then the costs of noncumulative zoning are magnified.

c) *The invisibility of noncumulative zoning’s subsidy.* In their inflexibility, zoning districts do not differ from tax subsidies that can long outlive their utility.⁷⁰ The in-kind subsidy of cheaper land pro-

⁶⁸ The practice of inducing a rezoning through dealmaking is common practice in New York. For a recent example—conveniently located along Rick Hills’s running route—consider the ongoing effort by the Walentas family to secure a residential rezoning of land on Dock Street in DUMBO over neighbors’ vocal opposition, greased by side payments of schools and affordable housing to city councilors. See PlanNYC, *DUMBO Development* (New York University Furman Center for Real Estate and Urban Policy, Oct 19, 2009), online at <http://www.plannyc.org/taxonomy/term/675> (visited Nov 8, 2009) (describing the Walentas family’s proposed rezoning plan that envisions a building in which 70 of the 390 residential units are classified as affordable housing); Eliot Brown, *The Developers Who Came in from the Cold*, New York Observer (May 26, 2009), online at <http://www.observer.com/2009/real-estate/developers-who-came-cold> (visited Nov 8, 2009).

⁶⁹ It should be noted that noncumulative zoning is not justified by problems with parcel accumulation. Although manufacturing plants require large lots, a cumulatively zoned area could require the same sized lots as a noncumulatively zoned one. Even if it did not, there are other, more efficient ways of ensuring the ability of large lot development. See, for example, Michael Heller and Rick Hills, *Land Assembly Districts*, 121 Harv L Rev 1465, 1488–1511 (2008).

⁷⁰ As an example of such a tax subsidy, consider New York City’s 421-a program providing tax abatements for developers of residential real estate. See NYC Real Prop Tax § 421-a. Created in the 1970s amidst widespread fears that the middle class was fleeing the city, the program continues today, providing tax subsidies for luxury housing that likely would be built without this incentive and inspiring criticism that the program needlessly deprived the city of tax revenue. See Preston Niblack and Molly Wasow Park, *Worth the Cost? Evaluating the 421-a Property Tax*

vided by noncumulative zones is, however, inferior even to tax subsidies in one respect: noncumulative zones seem much less visible even to an attentive public. The reason for this invisibility is that the baseline of “neutral” treatment is much harder to perceive in zoning than in taxation. When a manufacturer or developer receives tax abatement, then it is obvious to minimally informed observers that they are receiving an unusual benefit for which they should be held accountable, because the layperson’s baseline of expectations is that one normally pays taxes. Thus, the New York City 421-a tax abatement program, which provides tax relief to developers and owners of newly built condominium apartments that have certain characteristics, generated enormous controversy in the popular press, because of the perception that people like Calvin Klein and Derek Jeter ought not to receive “special” tax relief.⁷¹ By contrast, when a manufacturer gets a cheap lot because competing bidders have been zoned out of existence, there is no intuitive baseline of expectations by which to identify or measure the benefit. No one can tell why residential users have never bid on a lot (which might not have been developed as residential housing even if rezoned), let alone the magnitude of the price reduction that the manufacturer received as a result of the zoning restriction.

The costs of invisibility are particularly high given the dynamics of big city local politics. The reason is a lack of partisan competition. Big city elections between different political parties are notoriously noncompetitive, particularly for races other than mayor.⁷² The absence of competition (and the weak tea of primary competition) reduces the amount of monitoring of government abuse. As the amount big city residents care about local politics is limited, the ease of finding things out and explaining them is particularly important. If it cannot be splashed on the cover of the *New York Post*, no one has an incentive to find out about it.

Put together, these political costs are high. Subsidy programs or tax abatements have to compete with other possible uses of local resources from schools to roads. Legislators are able to make tradeoffs between these uses, and interest groups and voters can mobilize support on behalf of one or another use. Thus, their value must at least

Exemption (NYC Independent Budget Office, Jan 2003), online at <http://www.ibo.nyc.ny.us/iboreports/421aTaxFiscalBrief.pdf> (visited Nov 8, 2009).

⁷¹ See Hannah Fons and Amy Blankstein, *Taxing Questions: A Look at J-51 and 421-a Abatements*, *The Cooperator: Co-Op & Condo Monthly*, online at <http://www.cooperator.com/articles/1378/1/Taxing-Questions> (visited Nov 8, 2009).

⁷² See David Schleicher, *Why Is There No Partisan Competition in City Council Elections? The Role of Election Law*, 23 *J L & Polit* 419, 422–25 (2007).

pass the test of being more valuable to local politicians than additional spending on popular causes like more police officers. Industrial retention does not have to go through this political crucible. As long as noncumulative zoning makes the costs invisible to the public, there is little political check to ensure that the costs of industrial retention do not massively outweigh the benefits.

CONCLUSION

The simplest solution to the problem of noncumulative zoning is simply to make such zones cumulative by permitting within them all uses less noxious than industry. Land markets are hardly perfect mechanisms for allocating parcels among competing uses for land. Non-cumulative zones, however, are highly unlikely to outperform even imperfect markets. As methods for abating nuisance lawsuits, such zones go far beyond what is necessary to preserve the rational expectations of industrial users. As mechanisms for subsidizing the industrial users' costs of acquiring land, such zoning imposes extraordinary deadweight losses—primarily elimination of housing opportunities—while making no effort to target the cost reduction to those very specific industries that are likely to generate spillover benefits for the city or region.

Rather than rely on this indiscriminate and inflexible device for subsidizing industry, we suggest that the city rely on subsidies that actually are earmarked for businesses that produce the touted benefits. Ideally, businesses would apply for grants based on their capacity to generate intellectual or labor market spillovers, ensuring a program that is maximally discriminating and subject to regular legislative review.

One might respond that such a subsidy-based system generates deadweight losses of its own in the form of higher taxation needed to generate the necessary revenue. Ideally, the city's system of taxation would be able to tap the extra value created by cumulative zones by using the increase in property assessments generated by the looser zoning restrictions to generate more revenue for (among other things) carefully targeted industrial subsidies. In such an ideal tax system, landowners could convert their land as of right to whatever use generated the highest returns, and cities would tax the land based on the market value of a vacant parcel without respect to its actual use. Such a system would impose little deadweight loss because the landowners' actions would not change their tax liability. Unfortunately, most states' systems of property taxation deter such a rational system of revenue by limiting the ability of a local government to tax certain types of property, either by under-

assessing residential uses⁷³ or by subjecting nonresidential uses to additional taxes from which residential users are exempt.⁷⁴

The best justification for noncumulative zones, in short, might be that they provide a second-best solution to an artificially constrained system of local government finance. By imposing conditions on the rezoning of noncumulatively zoned land, a city can generate various in-kind benefits that would be denied to the city if it allowed land to convert as of right. As such, there is a theoretical case that, as a second- (or third- or fourth-) best method of taxation, noncumulative zoning theoretically might be defensible as a stopgap measure. However, the case for noncumulative zoning ought to rest on its rationality as a (very odd) taxation measure, not its efficacy as a rational method of subsidizing industrial land. Even if noncumulative zoning does make sense as a tax measure (something there is good reason to be skeptical of), it only does so because of the extreme pathologies of the laws governing local taxation. The energy invested in its defense by urban planners and city politicians would be more wisely devoted to improving the municipal system of taxation so that cities would have revenue to do precisely what noncumulative zones do so crudely—retain industry that actually generates benefits worth subsidizing.

⁷³ New York City, for instance, taxes single-family homes and small condos based on 6 percent of their property value, but taxes large residential, commercial, and manufacturing properties based on 45 percent of the market value. See NYC Department of Finance, *Determining the Annual Assessment* (2009), online at http://home.nyc.gov/html/dof/html/property/property_val_assessment.shtml (visited Nov 8, 2009). The tax rates are somewhat higher on single-family homes, but not enough to make a particular difference given the difference in the tax bases. See NYC Department of Finance, *Rates and Other Charges* (2009), online at http://home.nyc.gov/html/dof/html/property/property_rates_rates.shtml (visited Nov 8, 2009) (stating that single family homes taxed at 16.8 percent while other tax rates are 13.1 percent, 12.6 percent, and 10.6 percent depending on type of use).

⁷⁴ See NYC Department of Finance, *Business and Excise Taxes* (2009) online at http://www.nyc.gov/html/dof/html/business/business_tax_gct.shtml (visited Nov 8, 2009) (describing various commercial taxes in New York City).

