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WHAT'S FAIRNESS GOT TO DO WITH IT?*

ENVIRONMENTAL JUSTICE AND THE SITING OF LOCALLY UNDESIRABLE LAND USES

Vicki Been†

Policy makers and local land use officials have long struggled to cope with the "not in my backyard" (NIMBY) syndrome in attempting to site "locally undesirable land uses" (LULUs), such as homeless shelters, drug or alcohol treatment centers, and waste disposal facilities. In general, LULUs are considered beneficial to society at large,¹ and many agree that they should be located somewhere.² Those same citizens protest vigorously, however, when such a use is sited near their homes.³ This protest is quite rational. The benefits

* Cf. TINA TURNER, *What's Love Got to do With It?*, on TINA LIVE (Capital Records 1988).

† Associate Professor of Law, New York University School of Law. I would like to thank participants in the NYU Brown Bag Lunch series and the Boston University School of Law Workshop, as well as Lea Brilmayer, Luke Cole, Larry Crocker, Michael B. Gerrard, Bruce Hay, Helen Hershkoff, Brian Israel, James Jacobs, Lewis Kornhauser, William Nelson, James Pope, Richard Revesz, Larry Sager, Ross Sandler, Michael Schill, William M. Sloan, Richard Stewart, and Naikang Tsao for their helpful comments on earlier drafts of this Article. I also would like to thank Steven Nataupsky, Jody Rosen Knower, Joshua Koltun, Rachel Schuldiner and Todd Smith for their assistance in the research for this Article. I am grateful for the support of the Filomen D'Agostino and Max E. Greenberg Research Fund at the New York University School of Law.

¹ The debate over the placement of LULUs generally assumes that the land uses are beneficial to society at large. In contrast, Robert Lake has argued that LULUs are not needed by society, but "constitute structurally constrained political solutions to economic problems that privilege the needs of capital." Robert W. Lake, *Rethinking NIMBY*, 59 AM. PLAN. ASS'N J. 87, 88 (1993). His argument does not eliminate the need to examine how LULUs can be sited more fairly, but it does point in the direction of the theory of fairness as the efficient internalization of costs. See *infra* notes 293-300 and accompanying text.

² Opponents of a siting often assert, however, that the land use should not be located in anyone's backyard because it is unnecessary or represents an inappropriate solution to a particular problem. Battles over nuclear power plants, resource recovery plants for municipal solid waste, hazardous and low level radioactive waste facilities, and prisons all have involved debates over whether the facilities were really necessary or whether they were the best solution to the problem they sought to address. See, e.g., Michael Heiman, *From 'Not in My Backyard!' to 'Not in Anybody's Backyard!'* *Grassroots Challenge to Hazardous Waste Facility Siting*, 56 AM. PLAN. ASS'N J. 359 (1990).

³ See generally KENT E. PORTNEY, *SITING HAZARDOUS WASTE TREATMENT FACILITIES: THE NIMBY SYNDROME* 10-14 (1991) and Michael Dear, *Understanding and Overcoming the NIMBY Syndrome*, 58 AM. PLAN. ASS'N J. 288 (1992) (both discussing the nature of the NIMBY syndrome).

that LULUs produce typically are diffused throughout society, while their costs and risks are concentrated on a relatively small group of neighbors.⁴ No one wants to be one of the unlucky folks forced to bear those costs.⁵

Because local protest can be costly, time-consuming, and politically damaging, siting decision makers often take the path of least resistance—choosing sites in neighborhoods that are least likely to protest effectively.⁶ Not surprisingly, many of the neighborhoods selected are populated disproportionately by the poor and by peo-

⁴ The costs of LULUs vary by the nature of the project. Noxious LULUs such as hazardous waste facilities, nuclear power plants and polluting factories often pose health risks to those living nearby. Additionally, neighbors fear that such LULUs will decrease neighboring property values, increase noise, odors, pollution and congestion, and stigmatize the community. See, e.g., MICHAEL R. EDELSTEIN, *CONTAMINATED COMMUNITIES: THE SOCIAL AND PSYCHOLOGICAL IMPACTS OF RESIDENTIAL TOXIC EXPOSURE* 17-117 (1988); U.S. COMPTROLLER GENERAL, *HOW TO DISPOSE OF HAZARDOUS WASTE—A SERIOUS QUESTION THAT NEEDS TO BE ANSWERED* 10 (1978); James M. Melius et al., *Facility Siting and Health Questions: The Burden of Health Risk Uncertainty*, 17 NAT. RESOURCES LAW. 467 (1984); David Morell, *Siting and the Politics of Equity*, in *RESOLVING LOCATIONAL CONFLICT* 117, 120-21 (Robert W. Lake ed., 1987); Celeste P. Duffy, Note, *State Hazardous Waste Facility Siting: Easing the Process Through Local Cooperation and Preemption*, 11 B.C. ENVTL. AFF. L. REV. 755, 769-70 (1984). Social service LULUs may decrease neighboring property values, pose risks to neighbors' personal safety, and threaten the neighborhood's quality of life. See, e.g., MICHAEL J. DEAR & S. MARTIN TAYLOR, *NOT ON OUR STREET* 22 (1982); Richard Balukas & Joan W. Baken, *Community Resistance to Development of Group Homes for People with Mental Retardation*, 46 REHABILITATION LITERATURE 194, 196 (1985); Harold A. Berdiansky & Richard Parker, *Establishing a Group Home for the Adult Mentally Retarded in North Carolina*, 15 MENTAL RETARDATION 8, 9-10 (1977); Dear, *supra* note 3, at 290-91; Paul Maxim & Darryl Plecas, *Prisons and Their Perceived Impact on the Local Community: A Case Study*, 13 SOC. INDICATORS RES. 39, 49 (1983); Phyllis Solomon, *Analyzing Opposition to Community Residential Facilities for Troubled Adolescents*, 62 CHILD WELFARE 361, 364 (1983); Donald E. Weber, *Neighborhood Entry in Group Home Development*, 57 CHILD WELFARE 627, 634 (1978).

⁵ Local benefits, such as increased tax revenues, new jobs, increased revenue for local suppliers and amenities provided by the facility's developers, usually are insufficient to counter the facility's local costs. U.S. ENVTL. PROT. AGENCY, *SITING OF HAZARDOUS WASTE MANAGEMENT FACILITIES AND PUBLIC OPPOSITION* 124 (1979); Lawrence S. Bacow & James R. Milkey, *Overcoming Local Opposition to Hazardous Waste Facilities: The Massachusetts Approach*, 6 HARV. ENVTL. L. REV. 265, 268-69 (1982); Gail Bingham & Daniel S. Miller, *Prospects for Resolving Hazardous Waste Siting Disputes Through Negotiation*, 17 NAT. RESOURCES LAW. 473, 474, 478 (1984); A. Dan Tarlock, *Siting New or Expanded Treatment, Storage, or Disposal Facilities: The Pigs in the Parlors of the 1980s*, 17 NAT. RESOURCES LAW. 429, 433 (1984).

⁶ A consultant's report regarding the siting of three incinerators proposed by the city of Los Angeles contained the following frank advice:

Certain types of people are likely to participate in politics, either by virtue of their issue awareness or their financial resources, or both. Members of middle or higher-socioeconomic strata (a composite index of level of education, occupational prestige, and income) are more likely to organize into effective groups to express their political interests and views. All socioeconomic groupings tend to resent the nearby siting of major facilities, but the middle and upper-socioeconomic strata possess better resources to effectuate their opposition. Middle and higher-socioeco-

ple of color.⁷ Indeed, many representatives of low income and predominantly African American, Latino, or other minority neighborhoods charge that industry and governmental siting officials have adopted a PIBBY—"put it in blacks' backyards"—strategy for siting LULUs.⁸

Those neighborhoods are now fighting back.⁹ Several community groups have sued local governments and LULU developers, al-

conomic strata neighborhoods should not fall at least within the one mile and five mile radii of the proposed site.

. . . [A]lthough environmental concerns cut across all subgroups, people with a college education, young or middle-aged, and liberal in philosophy are most likely to organize opposition to the siting of a major facility. Older people, people with a high school education or less, and those who adhere to a free market orientation are least likely to oppose a facility.

J. STEPHEN POWELL, CERRELL ASSOCIATES, POLITICAL DIFFICULTIES FACING WASTE TO ENERGY CONVERSION PLANT SITING, REPORT TO THE CALIFORNIA WASTE MANAGEMENT BOARD 42-43 (1984). Accordingly, the consultants recommended that "communities that conform to some kind of economic need criteria should be given high priority" and that officials should look for "lower socioeconomic neighborhoods" that were also in "a heavy industrial area with little, if any, commercial activity." Dick Russell, *Environmental Racism*, 11 AMICUS J. 22, 25-26 (1989) (quoting Cerrell Associates, *supra*). For discussions of how the relative political power of neighborhoods factors into siting decisions, see, e.g., Robert D. Bullard & Beverly Hendrix, *The Politics of Pollution: Implications for the Black Community*, 47 PHYLON 71, 78 (1986); James H. Johnson, Jr. & Melvin L. Oliver, *Blacks and the Toxics Crisis*, 13 W. J. BLACK STUD. 72 (1989); Patrick G. Marshall, *Not in My Backyard!*, 1989 EDITORIAL RES. REP. 306, 313, 315; Ginny Carroll, *When Pollution Hits Home*, NAT'L WILDLIFE, Aug./Sept. 1991, at 31-32; John Elson, *Dumping on the Poor*, TIME, Aug. 13, 1990, at 46; Dennis Pfaff, *Pollution and the Poor*, THE DETROIT NEWS, Nov. 26, 1989, at 1A, 14A; Peter Steinhart, *What Can We Do About Environmental Racism*, AUDUBON, May, 1991, at 18. For empirical evidence of the role political power plays, see James T. Hamilton, *Politics and Social Cost: Estimating the Impact of Collective Action on Hazardous Waste Facilities*, 24 RAND. J. ECON. 101, 115-18 (1993).

⁷ For a discussion about why poor communities are less able to organize to protest a siting proposal, see Regina Austin & Michael Schill, *Black, Brown, Poor & Poisoned: Minority Grassroots Environmentalism and the Quest for Eco-Justice*, 1 KAN. J. L. & PUB. POL'Y 69, 71 (1991); Luke W. Cole, *Empowerment as the Key to Environmental Protection: The Need for Environmental Poverty Law*, 19 ECOL. L.Q. 619, 628 (1992).

⁸ See ROBERT D. BULLARD, *DUMPING IN DIXIE: RACE, CLASS, AND ENVIRONMENTAL QUALITY* 5 (1990). The disproportionate siting of LULUs in low income and minority neighborhoods is one aspect of the movement that has become known as "environmental racism," "environmental equity" or "environmental justice." The movement contends that racial minorities are exposed to greater environmental risks than are whites because of racism in the siting of environmental risks, the promulgation and enforcement of environmental laws and regulations, and the clean-up of polluted areas. It seeks greater environmental protection for minorities and the poor. See Robert D. Bullard, *The Threat of Environmental Racism*, 7 NAT. RESOURCES & ENV'T 23 (1993); Karl Grossman, *Environmental Justice*, E MAG., May-June 1992, at 31. This article adopts the term "environmental justice" to refer to the movement.

⁹ The quest for justice in the siting of LULUs is the flip-side of the inequitable municipal services movement of the 1960s. There, many charged that communities disproportionately placed "goods" such as street lamps, libraries, and other beneficial services in wealthy neighborhoods to the exclusion of poor neighborhoods. See, e.g., CHARLES M. HAAR & DANIEL W. FESSLER, *THE WRONG SIDE OF THE TRACKS* (1986); *EQUITY IN THE CITY* (P.N. Troy ed., 1981); ROBERT L. LINEBERRY, *EQUALITY AND URBAN*

leging that officials have made siting decisions in a discriminatory manner, in violation of the Equal Protection Clause.¹⁰ The lawsuits have not been successful, and promise little success, because of the *Arlington Heights* requirement that the plaintiffs must prove discriminatory intent.¹¹ As a result, neighborhoods have adopted grass-roots techniques, such as protests, civil disobedience and initiative

POLICY (1977); Kenneth W. Bond, *Toward Equal Delivery of Municipal Services in the Central Cities*, 4 FORDHAM URB. L.J. 263 (1976); Robert L. Graham & John H. Kravitt, *The Evolution of Equal Protection—Education, Municipal Services, and Wealth*, 7 HARV. C.R.-C.L. L. REV. 103 (1972); Robert P. Inman & Daniel L. Rubinfeld, *The Judicial Pursuit of Local Fiscal Equity*, 92 HARV. L. REV. 1662 (1979); Gershon Ratner, *Inter-Neighborhood Denials of Equal Protection in the Provision of Municipal Services*, 4 HARV. C.R.-C.L. L. REV. 1 (1968); Carl S. Shoup, *Rules for Distributing a Free Government Service Among Areas of a City*, 42 NAT'L TAX J. 103 (1989); Note, *Equalization of Municipal Services: The Economics of Serrano and Shaw*, 82 YALE L.J. 89 (1972); Note, *The Right to Adequate Municipal Services, Thoughts and Proposals*, 44 N.Y.U. L. REV. 753 (1969); Clayton P. Gillette, *Equality and Variety in the Delivery of Municipal Services*, 100 HARV. L. REV. 946 (1987) (book review).

¹⁰ See *R.I.S.E., Inc. v. Kay*, 768 F. Supp. 1144 (E.D. Va. 1991), *aff'd*, 977 F.2d 573 (4th Cir. 1992) (rejecting an equal protection challenge to the siting of a landfill in a predominantly black neighborhood); *East Bibb Twiggs Neighborhood Ass'n v. Macon-Bibb County Planning and Zoning Comm'n*, 706 F. Supp. 880 (M.D. Ga. 1989), *aff'd*, 896 F.2d 1264 (11th Cir. 1989) (finding plaintiff's evidence insufficient to establish that "improper racial animus" motivated zoning board's decision to approve a landfill in a predominantly black community); *Coalition of Bedford-Stuyvesant Block Ass'n, Inc. v. Cuomo*, 651 F. Supp. 1202 (E.D.N.Y. 1987) (finding no discriminatory intent in decision to site a homeless shelter in a predominantly minority neighborhood); *Bean v. Southwestern Waste Management Corp.*, 482 F. Supp. 673 (S.D. Tex. 1979), *aff'd*, 782 F.2d 1038 (5th Cir. 1986) (refusing to grant a preliminary injunction against construction of solid waste disposal facility near a predominantly black school and a predominantly black residential neighborhood); *Harrisburg Coalition Against Ruining the Environment v. Volpe*, 330 F. Supp. 918 (M.D. Pa. 1971) (rejecting plaintiff's claim that the proposed construction of two highways through a public park predominantly used by blacks was racially motivated).

Several cases raising equal protection claims have not yet been decided on the merits. See, e.g., *Matthews v. Institute for Community Living*, No. CIV 92-4029 (E.D.N.Y. filed Aug. 20, 1992); *Bordeaux Action Comm'n. v. Metropolitan Gov't of Nashville*, No. 390-0214 (M.D. Tenn. filed Mar. 12, 1990); *El Pueblo para el Aire y Agua Limpio v. Chemical Waste Mgmt. Inc.*, No. CIV-F-91-578-OWW (E.D. Cal. filed July 7, 1991); *Laramore v. Illinois Sports Facilities Auth.*, 722 F. Supp. 443 (N.D. Ill. 1989).

Plaintiffs also have challenged siting decisions under Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, but have not been successful. See *Coalition of Concerned Citizens Against I-670 v. Damian*, 608 F. Supp. 110 (S.D. Ohio 1984).

¹¹ *Arlington Heights v. Metropolitan Hous. Dev. Corp.*, 429 U.S. 252 (1977). For discussions of the difficulty of meeting that standard in environmental racism cases, see Robert W. Collin, *Environmental Equity: A Law and Planning Approach to Environmental Racism*, 11 VA. ENVTL. L. REV. 495, 518-37 (1992); Richard J. Lazarus, *Pursuing "Environmental Justice": The Distributional Effects of Environmental Protection*, 87 NW. U. L. REV. 787 (1993); Peter L. Reich, *Greening the Ghetto: A Theory of Environmental Race Discrimination*, 41 KAN. L. REV. 271, 290-97 (1992); Kelly M. Colquette & Elizabeth A. H. Robertson, Note, *Environmental Racism: The Causes, Consequences, and Commendations*, 5 TUL. ENVTL. L.J. 153, 198-205 (1991); Rachel D. Godsil, Note, *Remediating Environmental Racism*, 90 MICH. L. REV. 394 (1991); Naikang Tsao, Note, *Ameliorating Environmental Racism: A Citizens' Guide to Combatting the Discriminatory Siting of Toxic Waste Dumps*, 67 N.Y.U. L. REV. 366, 405-16 (1992).

campaigns as their primary challenge to sitings.¹² When they litigate, neighborhoods attack disproportionate sitings indirectly by using environmental protection and land use laws to block sitings.¹³

Additionally, advocates for "environmental justice" have lobbied Congress, state legislatures and local governments to prevent the unfair distribution of LULUs. The most notable success thus far is the "fair share" criteria that New York City adopted in 1990 to ensure that every borough within the city, and every community within each borough, bear its fair share of undesirable land uses.¹⁴ Congress may follow suit.¹⁵ In 1992 Senator Albert Gore (D-Tenn.) and Congressman John Lewis (D-Ga.) proposed the "Environmental Justice Act of 1992" to "ensure that [the] significant adverse health impacts that may be associated with environmental pollution in the United States are not distributed inequitably."¹⁶ Congressman John Lewis (D-Ga.) reintroduced the legislation in May 1993. The Environmental Justice Act would declare a moratorium on the siting of toxic chemical facilities in "environmental high impact areas," the 100 areas that contain the most toxic chemicals, if research demonstrates that there are "significant adverse [health] impacts" from the pollution in those areas.¹⁷

Congressmen Mike Synar (D-Okla.) and Bill Clinger (R-Pa.) have introduced legislation to amend the Solid Waste Disposal Act

¹² See, e.g., Austin & Schill, *supra* note 7, at 71-76; Robert D. Bullard & Beverly H. Wright, *The Quest for Environmental Equity: Mobilizing the African-American Community for Social Change*, 3 SOC'Y & NAT. RESOURCES 301, 305-07 (1990); Cole, *supra* note 7, at 646-54; Elson, *supra* note 6; Elizabeth Martinez, *When People of Color Are An Endangered Species*, Z MAG., April 1991, at 61; Dennis Pfaff, *Minorities Speak Out More About Pollution*, THE DETROIT NEWS, Nov. 26, 1989, at A1; Russell, *supra* note 6, at 22-24, 26-31.

¹³ See, e.g., *Community Alliance for the Env't v. Dinkins*, No. 400080/93 (N.Y. Sup. Ct., New York County, filed Feb. 25, 1993) (alleging that a decision to site an incinerator violates state environmental laws and city zoning laws); *El Pueblo Para El Aire y Agua Limpio v. County of Kings*, 22 Env'tl. L. Rep. (Env'tl. L. Inst.) 20357 (Cal. Super. Ct., Sacramento County 1991) (alleging that a decision to permit a toxic waste incinerator near a small farmworker community that is 95% Latino violated the California Environmental Quality Act, the state planning and zoning law, and the county zoning ordinance).

¹⁴ New York City Planning Commission, *Criteria for the Location of City Facilities* (1990).

¹⁵ State legislatures also are considering various measures to ensure fair siting. See, e.g., CA A.B. 2212, 1993-94 Cal. Leg. Reg. Sess. (1993) (requiring permit applications for waste facilities to describe the demographics of the proposed host area); N.Y. A.B. 3363, 215th Gen. Ass., 1st Sess. (1993) (proposing an equitable land use commission to create guidelines for the siting of new facilities).

¹⁶ S. 2806, 102d Cong., 2d Sess. (1992).

¹⁷ H.R. 2105, 103d Cong., 1st Sess. (1993). See 139 CONG. REC. E1243 (daily ed. May 12, 1993) (statement of Mr. Lewis). Senator Max Baucus (D-Mont.) introduced the Environmental Justice Act of 1993 in the Senate in June 1993. It is similar to H.R. 2105 but does not contain the moratorium provision. S. 1161, 103d Cong., 1st Sess. (1993). See 139 CONG. REC. S8093 (daily ed. June 24, 1993) (statement of Mr. Baucus).

to require the permitting process for hazardous waste facilities to consider "community information statements" that assess the demographic characteristics of the proposed site.¹⁸ The community information statements would also analyze the LULU burdens that the community already bears.¹⁹ Congresswoman Cardiss Collins (D-Ill.) has sponsored the Environmental Equal Rights Act of 1993, which would require environmental officials to reject proposals to site hazardous or solid waste facilities in any "environmentally disadvantaged" community.²⁰ An environmentally disadvantaged community is one that already has certain kinds of facilities and is disproportionately poor or minority.²¹

The various legislative solutions to the problem of disproportionate siting reflect different conceptions about why disproportionate siting is wrong, and about what would constitute "fair" siting. The differences are not surprising. Calls for environmental justice are essentially calls for "equality" and, as Peter Westen has noted, "equality in the end is a rhetorical device that tends to persuade precisely by virtue of 'cloak[ing] strongly divergent ideas over which people do in fact disagree.'"²² Advocates of environmental justice have wisely chosen to advance general concepts of equality, rather than endanger their coalition by attempting to specify the precise content of "justice," "equity" or "fairness."²³

This article takes a hard look at the content of the goal of environmental justice. It explores what various conceptions of equality would look like if translated into concrete siting programs. Attempts to specify what "virtue words" such as fairness, justice and equity mean often unmask many vices; this project is no exception. In the context of siting, all the leading theories of fairness encounter significant philosophical and pragmatic objections. In revealing those objections, the article seeks to chart the course for further thinking and debate about the validity and feasibility of calls for fair siting.

¹⁸ H.R. 495, 103d Cong., 1st Sess. (1993). See 139 CONG. REC. E135 (daily ed. Jan. 21, 1993) (statement of Mr. Clinger); 139 CONG. REC. E151 (daily ed. Jan. 25, 1993) (statement of Mr. Synar). Senator John Glenn introduced a similar bill in the Senate. S. 533, 103d Cong., 1st Sess. (1993). See 139 CONG. REC. S2550 (daily ed. March 9, 1993) (statement of Mr. Glenn).

¹⁹ H.R. 495, 103d Cong., 1st Sess. (1993).

²⁰ H.R. 1924, 103d Cong., 1st Sess. (1993). See 139 CONG. REC. E1106 (daily ed., April 30, 1993) (statement of Ms. Collins).

²¹ H.R. 1924, 103d Cong., 1st Sess. § 3(a)(D) (1993).

²² PETER WESTEN, SPEAKING OF EQUALITY 270-71 (1990) (quoting Charles Frankel, *Equality of Opportunity*, 81 ETHICS 191, 192 (1971)).

²³ See Dorceta Taylor, *Can the Environmental Movement Attract and Maintain the Support of Minorities*, in RACE AND THE INCIDENCE OF ENVIRONMENTAL HAZARDS 28, 44-45 (Bunyan Bryant & Paul Mohai eds., 1992) [hereinafter INCIDENCE].

Part I of this article explores the evidence that LULUs are sited disproportionately in neighborhoods whose residents are predominantly poor or people of color.²⁴ The article relies both on evidence about the particularly noxious LULUs that have been the focus of the environmental justice movement and on literature regarding the siting of social service LULUs such as group homes for the mentally retarded. Accordingly, it provides a much more comprehensive look at the distribution of LULUs than previous literature.²⁵

Part II discusses four general objections to any attempt to remedy disproportionate siting. First, it explores whether the siting process that is the focus of reform proposals actually caused the disproportionate siting patterns documented by the evidence.²⁶ It concludes that the evidence fails to establish causation, and suggests the direction future research should take to remedy that failure. It argues, however, that because some proposed reforms are forward-looking and do not depend upon proof that siting decisions in the past were illegitimate, the debate over those reforms need not await further research.

Part II then examines whether the dynamics of the real estate market render any attempt to distribute LULUs fairly a futile exercise.²⁷ It shows that theoretically, even if the current distribution of LULUs could be rearranged to yield an unquestionably fair distribution, the interaction of poverty, racial discrimination in housing markets, and the normal forces of residential mobility might soon recreate a situation where those living next to LULUs were predominately poor and people of color. The Article argues, however, that the problem of mobility does not derail attempts to ensure fair siting.

Next, Part II explores whether fair siting programs can focus only on the burdens that a LULU imposes on a community, without considering whether those burdens are offset by benefits the community also has received through the political process.²⁸ All government decisions, from taxation to police protection, benefit some

²⁴ See *infra* notes 39-76 and accompanying text.

²⁵ Examination of evidence regarding the siting of social service LULUs is not meant to imply that they are equivalent to noxious land uses such as hazardous waste facilities. Resistance to noxious land uses is based primarily on the risk the facility poses to neighbors' health and safety, while resistance to social service facilities often is based upon neighbors' fears about or prejudice toward the people who will use the social service, concerns about neighborhood "character" and concerns about property values. Despite those differences, neighborhoods view both types of LULUs as inequitably distributed and have called for greater fairness in the siting of both. It is therefore helpful to consider both in discussing what it means to site land uses fairly.

²⁶ See *infra* notes 81-91 and accompanying text.

²⁷ See *infra* notes 92-119 and accompanying text.

²⁸ See *infra* notes 120-29 and accompanying text.

neighborhoods more than others. To assess whether a siting is fair, those other decisions may be relevant. The Article suggests one justification for focusing exclusively on the distribution of LULUs, and challenges advocates of fair siting programs to offer others.

Finally, Part II acknowledges the argument that fair siting proposals run contrary to the free-market ideology of the United States.²⁹ Currently, environmental amenities are generally allocated by the market, and infringements upon the market generally require some justification. The Article suggests the direction such justifications might take.

Part III advances seven theoretical arguments about why disproportionate siting is unfair, and explores what fairness would mean under each of those theories.³⁰ First, fair siting could mean that LULUs are evenly apportioned among all neighborhoods.³¹ Second, fair siting might mean that neighborhoods in which a LULU is not sited must compensate the host community for its damages.³² Third, fairness could require "progressive siting," in which wealthier neighborhoods receive a greater number of LULUs, or pay a greater share of a host community's damages, than poor or minority neighborhoods.³³ Fourth, fairness could demand that all communities receive an equal number of vetoes that they could use to bid against other communities for the privilege of excluding a LULU.³⁴ Fifth, fair siting might require that those who benefit from a LULU bear its cost.³⁵ Sixth, fairness could simply require that the siting process involve no intentional discrimination against people of color.³⁶ Seventh, fair siting could require a process that shows "equal concern and respect" for all neighborhoods.³⁷

Like Part I, Part III seeks to integrate the approach of the environmental justice movement with that of the social scientists who have long been concerned about the problem of disproportionate siting of social service agencies. It also draws upon the work of economists and urban policy analysts who have modeled siting processes, as well as that of philosophers and political scientists who have explored the problems of distributional inequity. Part III does not seek to prove the primacy of one conception of fairness or offer a "new and improved" model of fairness. Instead, it demonstrates

²⁹ See *infra* notes 130-32 and accompanying text.

³⁰ See *infra* notes 133-354 and accompanying text.

³¹ See *infra* notes 158-200 and accompanying text.

³² See *infra* notes 201-46 and accompanying text.

³³ See *infra* notes 247-76 and accompanying text.

³⁴ See *infra* notes 277-92 and accompanying text.

³⁵ See *infra* notes 293-319 and accompanying text.

³⁶ See *infra* notes 320-36 and accompanying text.

³⁷ See *infra* notes 337-54 and accompanying text.

that different theories of fairness should lead to radically different siting programs, so that one cannot adequately evaluate a fair siting proposal without first identifying its underlying conception of fairness. In addition, this Part examines the problems that must be resolved before the various fairness theories can be translated into effective siting programs.

Part IV analyzes the legislative strategies that have been adopted or proposed to address the problem of disproportionate siting, and suggests the conception of fairness that each embodies.³⁸ It explores problems with each strategy in light of Part III's analysis of what different conceptions of fairness require and shows that some are likely to be too weak or narrow to change siting patterns significantly. It reinforces the discussion in Part III by showing the further work required to craft a theoretically and practically sound program to ensure that LULUs are sited fairly.

I

THE PROBLEM OF DISCRIMINATORY SITING

Several recent studies have documented the extent to which locally undesirable land uses are located disproportionately³⁹ in neighborhoods that are populated primarily by the poor and people of color.⁴⁰ The United States General Accounting Office conducted the first major study on this issue, examining the racial and socioeconomic characteristics of the residents of communities near four

³⁸ See *infra* notes 355-478 and accompanying text.

³⁹ The studies discussed in this Article focus on the location of LULUs. Other studies show that the poor and people of color bear a disproportionate share of the general burdens of pollution and of the costs of cleaning up pollution, but do not specifically address the burden of hosting polluting LULUs. See Maureen L. Cropper & Wallace E. Oates, *Environmental Economics: A Survey*, 30 J. ECON. LIT. 675, 727-28 (1992) (reviewing the literature); Paul Mohai & Bunyan Bryant, *Environmental Injustice: Weighing Race and Class as Factors in the Distribution of Environmental Hazards*, 63 U. COLO. L. REV. 921 (1992) (reviewing 16 such studies). Additionally, studies show that the Environmental Protection Agency (EPA) is much less vigorous in its enforcement of environmental laws in minority communities. Marianne Lavelle & Marcia Coyle, *Unequal Protection: The Racial Divide in Environmental Law*, NAT'L L.J., Sept. 21, 1992, at S2. See also Rae Zimmerman, Social Equity and Environmental Risk 20 (Feb. 1993) (unpublished manuscript on file with author) (finding that the higher the percentage of blacks in a community, the less likely it was that hazardous waste sites had progressed to a particular stage of cleanup, especially when the community also was relatively poor, but finding that the higher the percentage of Latinos, the more likely the cleanup had progressed). But see John A. Hird, *Environmental Policy and Equity: The Case of Superfund*, 12 J. POL'Y ANALYSIS & MGMT. 323, 337 (1993) (finding no relationship between the pace at which sites are cleaned up and the host county's socioeconomic characteristics).

⁴⁰ I shall sometimes refer to people of color by the unfortunate term "minorities." For a discussion of the problems with the term, see Patricia J. Williams, *Alchemical Notes: Reconstructing Ideals from Deconstructed Rights*, 22 HARV. C.R.-C.L. L. REV. 401, 404 n.4 (1987).

hazardous waste landfills in the Southeast.⁴¹ The landfills studied are among the largest in the United States. As of 1980 three of the four host communities were predominantly African American. Indeed, while only about twelve percent of the population of the United States was African American in 1980,⁴² African Americans comprised between fifty-two percent and ninety percent of the population in three of the host communities.⁴³ The fourth landfill was sited in a portion of a county that was only thirty-eight percent African American, but the population of areas within four miles of the landfill was between sixty-nine percent and ninety-two percent African American.⁴⁴ All of the communities were disproportionately poor, with between twenty-six percent and forty-two percent of the population living below the poverty level.⁴⁵

In 1987 the United Church of Christ Commission for Racial Justice (CRJ) published the first national study of communities in which hazardous waste dumps were located.⁴⁶ The CRJ's cross-sectional study compared the racial and socio-economic status of residents of the zip code areas surrounding 415 commercial hazardous waste facilities to those of zip code areas that did not have such facilities.⁴⁷ CRJ found a correlation between the number of commercial hazardous waste facilities a community hosts and the percentage of the community's population that is "nonwhite."⁴⁸ Areas with one operating commercial hazardous waste facility, other than a landfill, had almost twice the percentage of people of color than those areas without such a facility.⁴⁹ Furthermore, areas that had more than

41 The states included in the study, which comprise EPA's Region IV, were Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. U.S. GENERAL ACCOUNTING OFFICE, SITING OF HAZARDOUS WASTE LANDFILLS AND THEIR CORRELATION WITH RACIAL AND ECONOMIC STATUS OF SURROUNDING COMMUNITIES 2 (1983) [hereinafter GAO].

42 U.S. BUREAU OF THE CENSUS, STATISTICAL ABSTRACT OF THE UNITED STATES: 1992, at 16.

43 GAO, *supra* note 41, at 4.

44 GAO, *supra* note 41, app. 1 at 3.

45 GAO, *supra* note 41, app. 1 at 4.

46 COMMISSION FOR RACIAL JUSTICE, UNITED CHURCH OF CHRIST, TOXIC WASTES AND RACE IN THE UNITED STATES 3 (1987) [hereinafter CRJ].

47 Commercial hazardous waste facilities are public or private facilities that accept hazardous waste from a third party for a fee for the purpose of treating, storing or disposing of the waste. *Id.* at 65. The CRJ studied all such facilities in the contiguous United States that could be identified through the EPA's Hazardous Waste Data Management System. *Id.* at 10, 65.

48 The CRJ study considered a correlation to be significant at both the 99% confidence level, which is generally used in empirical studies, and at the 90% confidence level. Accordingly, a one in ten probability exists that some of the findings were chance occurrences. *Id.* at 11. For criticisms of the methodology of the CRJ, see Lazarus, *supra* note 11, at 802 n. 56.

49 CRJ, *supra* note 46, at 13. *But see* Michel Gelobter, *Toward a Model of "Environmental Discrimination"*, in *INCIDENCE*, *supra* note 23, at 72 (CRJ's finding that 24% of all mi-

one operating facility, or had one of the five largest commercial hazardous waste landfills, had more than three times the percentage of minority residents as areas without such facilities.⁵⁰ Additionally, CRJ discovered a significant correlation between socioeconomic variables and the location of commercial facilities: mean household income and home values were considerably less in areas containing hazardous waste facilities than in the surrounding counties.⁵¹

Similarly, the study found that people of color were slightly more likely than whites to live in an area containing an uncontrolled hazardous waste site; that is, either closed and abandoned dumps, disposal facilities, factories, or warehouses that the Environmental Protection Agency (EPA) identified as posing a potential threat to the environment and public health.⁵² Approximately fifty-four percent of all whites live in such an area, while about fifty-seven percent

norities have one facility in their community, although minorities make up only 12% of the nation's population, does not exclude the possibility that most facilities are located in urban areas, where minorities constitute about 24% of the population). *See also* Hird, *supra* note 39, at 333 n. 18 (finding that when only urban counties were studied, race was not a statistically significant predictor of the location of NPL sites). For a description of the NPL, see *infra* note 52.

⁵⁰ CRJ, *supra* note 46, at 13. *See also* Hird, *supra* note 39, at 333 (finding that counties with higher percentages of people of color have more NPL sites than other counties). For a description of the NPL, see *infra* note 52.

⁵¹ CRJ, *supra* note 46, at 41, 43. *See also* JAY M. GOULD, QUALITY OF LIFE IN AMERICAN NEIGHBORHOODS: LEVELS OF AFFLUENCE, TOXIC WASTE, AND CANCER MORTALITY IN RESIDENTIAL ZIP CODE AREAS (1986) (finding that the amount of toxic waste generated was lowest in communities with the highest incomes); Zimmerman, *supra* note 39 (percentage of population with incomes below the poverty line was somewhat higher in communities with NPL sites than in other communities, but income, median house value and median rents in the NPL communities were comparable to national and regional averages). *Cf.* CLEAN SITES, HAZARDOUS WASTE SITES AND THE RURAL POOR: A PRELIMINARY ASSESSMENT vi (1990) (poor rural counties contain disproportionately few hazardous waste sites: although 15% of the nation's counties are rural and poor, those counties contain only four percent of the CERCLIS sites, two percent of the RCRA facilities and two percent of the NPL sites in the nation). *But cf.* Hird, *supra* note 39, at 333 (finding that wealthier counties are more likely than poorer counties to have NPL sites). RCRA facilities are those that have received final or interim licenses for the treatment, storage, and disposal of hazardous waste under the procedures established by the Resource Recovery and Conservation Act, 42 U.S.C. §§ 6901-6992 (1992). For descriptions of CERCLIS and NPL, see *infra* note 52.

⁵² CRJ, *supra* note 46, at 3-4, 53. The sites were derived from the EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). *Id.* at 67. CERCLIS includes data on sites that have been identified by the EPA, pursuant to the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (1992), as containing hazardous substances that require cleanup or that may require cleanup now or in the future. The CERCLIS sites that exceed a specified score on the EPA's hazard ranking system are determined to require priority cleanup, and are placed on the National Priorities List (NPL).

of all African Americans and Latinos live near an uncontrolled hazardous waste site.⁵³

Several local studies buttress the findings of the nation-wide CRJ study.⁵⁴ For example, a study of New Jersey communities found that those with the greatest number of hazardous waste sites tended to have more poor, elderly, young and African American residents than other communities.⁵⁵ A Texas study of municipal incinerators and municipal and private landfills revealed that although African Americans made up only twenty-eight percent of Houston's population in 1980, six of the city's eight incinerators, five of the six municipal landfill sites permitted by the state, and all five of the unpermitted municipal landfill sites were located in predominantly African American neighborhoods.⁵⁶ Additionally, a Louisiana study of the hazardous waste incineration facilities in the Baton Rouge area found that minority communities had an average of one such site for every 7,349 residents, while white communities had only one site per 31,110 residents.⁵⁷ A study of the three counties surrounding metropolitan Detroit found that people of color were almost four times more likely to live within one mile of a waste facility than whites were.⁵⁸

Similarly, the Los Angeles County zip code area with the largest amount of chemical discharge (an indirect measure of the location

⁵³ CRJ, *supra* note 46, at 53. See also Zimmerman, *supra* note 39 (finding that African Americans are about 50 percent more likely to live in a community with a NPL site than is the population as a whole).

⁵⁴ In addition to the studies discussed in the text, see Kusum Ketkar, *Hazardous Waste Sites and Property Values in the State of New Jersey*, 24 APPLIED ECON. 647, 653 (1992) (analysis of 64 municipalities in seven urban counties in New Jersey "implies that the municipalities that have high property tax rates and a greater proportion of minorities also have a larger number of [hazardous waste] sites").

⁵⁵ MICHAEL R. GREENBERG & RICHARD F. ANDERSON, HAZARDOUS WASTE SITES: THE CREDIBILITY GAP 158-59 (1984).

⁵⁶ Robert Bullard, *Solid Waste Sites and the Black Houston Community*, 53 SOC. INQUIRY 273 (1983). Of the three sites in non-Black neighborhoods, one was located in a neighborhood undergoing transition from a white to an African American community, and one was located in a Hispanic neighborhood. Only one site was adjacent to a predominantly white community. *Id.* at 279-82.

⁵⁷ Harvey L. White, *Hazardous Waste Incineration and Minority Communities*, in INCIDENCE, *supra* note 23, at 126, 132.

⁵⁸ Paul Mohai & Bunyan Bryant, *Environmental Racism: Reviewing the Evidence*, in INCIDENCE, *supra* note 23, at 163, 172. Another analysis of Detroit found that forty-one of the city's top air polluters, twenty-five of the area's thirty-three most contaminated sites, and four of Detroit's five licensed hazardous waste treatment and storage facilities are located in neighborhoods with average per capita incomes of less than \$10,000. Pfaff, *supra* note 6, at 14A. The analysis did not reveal the racial makeup of the host communities. A subsequent article profiling the Delray area of Detroit (the neighborhood that suffers the worst air pollution in Michigan), revealed that 44% of the neighborhood's population had incomes below the federal poverty level, but that the neighborhood is predominantly white. Dennis Pfaff, *Pollution and the Poor*, THE DETROIT NEWS, Nov. 27, 1989, at 1A, 6A [hereinafter Pfaff 11].

of noxious facilities) is fifty-nine percent African American, even though the county's population is only about eleven percent African American.⁵⁹ Furthermore, in Saint Louis, a study of chemical discharge showed that a random sample of census tracts that were at least seventy-five percent African American had forty-six percent more chemical emissions than a comparable sample of census tracts that were at least seventy-five percent white.⁶⁰

These studies focused on land uses, such as waste treatment, storage and disposal facilities, that are or may become significant polluters. Evidence also suggests that land uses that are not noxious but nevertheless pose threats to the safety, character, and value of neighborhoods are also sited disproportionately. For example, a 1989 study of programs for the homeless in New York City showed that the two zip code areas in central Harlem have more than thirty programs each. In contrast, zip code areas on the Upper East Side and in Murray Hill, Greenwich Village, SoHo and Tribeca had five or fewer programs each.⁶¹ Similarly, studies of group homes for the mentally disabled reveal that such homes often are clustered together in the same neighborhoods.⁶² Community correctional facil-

⁵⁹ Jane Kay, *Minorities Bear Brunt of Pollution*, SAN FRANCISCO EXAMINER, April 7, 1991, at A1, A12 [hereinafter Kay, *Minorities*]. The population of the "dirtiest" zip code is 38 percent Hispanic, which mirrors the population of the county as a whole. See also Jane Kay, *Ethnic Enclaves Fight Toxic Waste*, SAN FRANCISCO EXAMINER, April 9, 1991, at A1 [hereinafter Kay, *Ethnic Enclaves*]. See also CITIZENS FOR A BETTER ENVIRONMENT, RICHMOND AT RISK: COMMUNITY DEMOGRAPHICS AND TOXIC HAZARDS FROM INDUSTRIAL POLLUTERS 2, 121-22 (1989) (residents of Richmond, California census tracts closest to polluting industrial facilities are disproportionately people of color and the poor).

⁶⁰ Kevin L. Brown, *Environmental Discrimination: Myth or Reality* 16-18 (1991) (unpublished student paper on file with author).

⁶¹ Susan Chira, *New York's Poorest Neighborhoods Bear the Brunt of Social Programs*, N.Y. TIMES, Jul. 16, 1989, at 1, col 1., 25 col. 5-6.

⁶² See, e.g., Martin Jaffe & Thomas P. Smith, *Siting Group Homes for Developmentally Disabled Persons*, 397 AMERICAN PLANNING ASSOCIATION PLANNING ADVISORY SERVICE 11-13 (1986) (in survey of planners, responses from large cities provided evidence of clustering); U.S. GENERAL ACCOUNTING OFFICE, AN ANALYSIS OF ZONING AND OTHER PROBLEMS AFFECTING THE ESTABLISHMENT OF GROUP HOMES FOR THE MENTALLY DISABLED 3, app. I, at 19 [hereinafter GAO II] (national survey of group homes found that more than one-third were located within two blocks of some other special population facility, and more than half of those were near two or more such facilities); Jeffrey L. Davidson, *Location of Community-based Treatment Centers*, 55 SOC. SERV. REV. 221, 228 (1981) (of the 108 census tracts in New Castle County, Delaware, only 15 hosted the county's 25 community based treatment centers, two census tracts hosted four centers each, and another four tracts hosted two centers each); Stuart A. Gabriel & Jennifer R. Wolch, *Spillover Effects of Human Service Facilities in a Racially Segmented Housing Market*, 16 J. URB. ECON. 339, 344-45 (1984) (finding that the predominantly minority neighborhoods in Oakland, California housed 50% of the City's population, but over 75% of the City's human service facilities).

ities, such as halfway houses for ex-offenders, also tend to be concentrated in relatively few neighborhoods.⁶³

The communities in which such social service facilities are clustered often are predominantly minority⁶⁴ or low income neighborhoods.⁶⁵ Further, the more undesirable the social service facility, the more likely it is to be located in a poor or minority community. Studies reveal, for example, that community residential facilities serving client populations considered undesirable neighbors (such as ex-criminal offenders)⁶⁶ are located in neighborhoods with higher percentages of minorities and with lower education and income than neighborhoods that host facilities serving more sympathetic populations, such as the mentally retarded.⁶⁷

There is, therefore, significant evidence of disproportionate siting. The evidence is flawed, however, in several important respects. First, the evidence does not establish that the siting process, rather than market forces such as residential mobility, caused the disparity. That criticism will be addressed in Part II's discussion of general objections to fair siting proposals.⁶⁸ Second, the evidence does not establish that siting decisions intentionally discriminated against people of color or the poor. That criticism is relevant only to those theories of fairness that require proof of discriminatory intent. The criticism therefore will be addressed in Part III's discussion of the progressive siting and intentional discrimination theories.⁶⁹

Finally, the strength of the evidence is limited by the imprecision of the studies' definition of the neighborhoods compared. In examining the distribution of LULUs, some studies define neighbor-

⁶³ Kevin Krajick, *'Not on My Block': Local Opposition Impedes the Search for Alternatives*, 6 CORRECTIONS MAGAZINE 15, 16 (1980). For instance, the south end of Boston had one halfway house bed for every 55 residents, while the rest of the city had one bed for every 847 residents. *Id.*

⁶⁴ See, e.g., Chira, *supra* note 61 (homeless shelters clustered in central Harlem, which is predominantly minority).

⁶⁵ See, e.g., GAO II, *supra* note 62, at App. III, p. 62 (majority of those living near group homes for the mentally disabled were blue collar workers, and 85% had average family incomes below \$25,000 in 1980 and 1981; information about the race of neighbors was not solicited); Krajick, *supra* note 63.

⁶⁶ For discussions of public attitudes toward various client populations, see DEAR & TAYLOR, *supra* note 4, at 27; Dear, *supra* note 3, at 291; Solomon, *supra* note 4, at 363-64.

⁶⁷ Davidson, *supra* note 62, at 230-35; Marc B. Goldstein et al., *Public Preferences and Site Location of Residential Treatment Facilities*, 17 J. COMMUNITY PSYCHOL. 186 (1989); Marc B. Goldstein et al., *Where the Group Homes are Found*, 72 SOC. & SOC. RES. 55, 56 (1987) [hereinafter *Group Homes*]; R. Sundeen & S. Fiske, *Local Resistance to Community-Based Care Facilities*, 6 J. OFFENDER COUNSELING, SERV. & REHABILITATION 29 (1982).

⁶⁸ See *infra* notes 81-91 and accompanying text.

⁶⁹ See *infra* notes 247-62, 323-36 and accompanying text.

hood as broadly as a municipality,⁷⁰ while others use census tracts⁷¹ or zip code areas,⁷² and some draw concentric circles around LULUs.⁷³ The researchers disagree about which unit of analysis best describes the neighborhood affected by a siting,⁷⁴ and about which definition of neighborhood ensures that the areas studied are comparable in terms of non-demographic factors, such as land area, that might bear on the number of facilities sited.⁷⁵

Despite those flaws, the evidence surveyed is more than sufficient to require legislatures to address the fairness of the distribution of LULUS. The question of how to site LULUs fairly is important regardless of whether siting decisions in the past were discriminatory in either intent or effect. Whatever their race or class, the residents of any area chosen today to host a LULU legitimately may ask, "Why us?"⁷⁶ The government must find a satisfactory answer, or else society will find itself in the stalemate that planners refer to as the "build absolutely nothing anywhere near anybody" (BANANA) dilemma.

II

FAIRNESS NEED NOT APPLY—INITIAL OBJECTIONS TO FAIR SITING PROPOSALS

Before turning to the specific theories of fairness that might justify fair siting proposals, four general objections to fair siting must be addressed. The first two concern the role that residential mobility plays in the distribution of LULUs. The first, called the "causation" objection, questions whether the disproportionate burden that people of color and the poor now bear resulted from the siting

⁷⁰ See, e.g., GREENBERG & ANDERSON, *supra* note 55, at 131, 158-59; Zimmerman, *supra* note 39, at 7-8.

⁷¹ Brown, *supra* note 60; see also East Bibb Twiggs Neighborhood Assn. v. Macon-Bibb County Planning and Zoning Comm'n, 706 F.Supp. 880 (M.D. Ga.), *aff'd*, 896 F.2d 1264 (11th Cir. 1989) (using census tract as unit of analysis, despite plaintiff's contention that focus should be on a larger area); Bean v. Southwestern Waste Mgmt. Corp., 482 F.Supp. 673, 677-78 (S.D. Tex. 1979), *aff'd*, 782 F.2d 1038 (5th Cir. 1986) (using census tract as unit of analysis).

⁷² CRJ, *supra* note 46, at 61-62; Kay, *Minorities*, *supra* note 59; White, *supra* note 57, at 128.

⁷³ Mohai & Bryant, *supra* note 58, at 170-72.

⁷⁴ Compare Zimmerman, *supra* note 39, at 7-8 (entire municipality is the best unit of analysis) with CRJ, *supra* note 46, at 61-62 (five digit zip code areas are best unit of analysis).

⁷⁵ Zip code areas, for example, may vary significantly in the land area included, and those variations limit the usefulness of comparisons between zip code areas. See CRJ, *supra* note 46, at 62.

⁷⁶ Studies of public opinion regarding siting proposals reveal that questions of equity are frequently raised by residents of the communities in which sites are proposed. See Helen C. Latham et al., *Public Attitudes Toward Siting of High-Level Nuclear Waste Repositories*, 46 TRANSACTIONS OF THE AM. NUCLEAR SOC'Y 600, 603 (1984) (meeting abstracts).

process or from the dynamics of the housing market.⁷⁷ The second, called the "mobility" objection, questions whether fair siting programs will ultimately make any difference in the distribution of LULUs, given a free market in which some individuals will be better able to move away from LULUs than others.⁷⁸ The third, the "aggregation" objection, asserts that any attempt to site LULUs fairly cannot consider the burdens that LULUs impose in isolation.⁷⁹ Instead, fair siting programs must also take into account the scores of other benefits and burdens that society regularly allocates among its citizens. The fourth, called the "free market" objection, argues that environmental quality should be distributed by the free market, just as most other environmental amenities are.⁸⁰

A. The Causation Objection

Fair siting proposals seek to change the LULU siting process in order to distribute LULU burdens more fairly. However, the evidence surveyed in Part I does not establish that siting choices caused the disproportionate impact LULUs now have on people of color and the poor. Most studies compare the current socio-economic characteristics of communities that now host various LULUs to those that do not host LULUs. In doing so, they fail to examine the communities' demographics at the time the facility was sited.⁸¹ Accordingly, they leave open the possibility that the LULUs were not disparately sited in poor and minority neighborhoods, but that the dynamics of the housing and job markets led people of color and the poor to move to areas surrounding LULUs because those neighborhoods offered the cheapest available housing.⁸²

⁷⁷ See *infra* notes 81-91 and accompanying text.

⁷⁸ See *infra* notes 92-119 and accompanying text.

⁷⁹ See *infra* notes 120-29 and accompanying text.

⁸⁰ See *infra* notes 130-32 and accompanying text.

⁸¹ Many hazardous waste facilities were sited after the Resource Recovery and Conservation Act, 42 U.S.C. §§ 6901-6992 (1988), was enacted in 1976. The CRJ study, which focuses on the demographics of communities as of the 1980 census, therefore comes fairly close to linking demographic data to the date of the siting. Because a significant number of hazardous waste facilities permitted after 1976 were operating before that date, or were converted from other undesirable land uses, such as on-site waste storage facilities, however, even the CRJ study cannot prove whether the facilities were located in neighborhoods that were minority communities at the time of the siting. See Vicki Been, LULUs in Minority Neighborhoods: Discriminatory Siting or Changing Demographics? (Feb. 5, 1993) (unpublished manuscript on file with author) (replicating several of the studies using demographic data from the census closest to the actual siting date).

⁸² An exception to the literature's lack of attention to whether siting decisions impose a disproportionate burden on people of color and the poor is Professor Hamilton's *Politics and Social Cost*, *supra* note 6. Hamilton examined the relationship between the socioeconomic characteristics of counties reported by the 1980 census and the planned capacity changes of existing hazardous waste processing facilities as of 1987. Because

Market dynamics may have significantly contributed to the current disparity in the location of LULUs in a number of ways. Many factories and other sources of hazardous waste were traditionally located in the center city because of greater access to transportation and markets.⁸³ In some cities, developers provided cheap housing for workers in the surrounding areas. As workers moved away, either because factories closed⁸⁴ or because more desirable housing became affordable elsewhere,⁸⁵ the cheap housing in the center cities became disproportionately populated by the poor and by people of color.⁸⁶ In other areas, the presence of industry reduced surrounding land values, creating prime locations for low income housing.⁸⁷ Under both scenarios, the poor and minorities are burdened with the legacy of industrial development not because LULUs were sited in their neighborhoods, but because of a complex dynamic in which poverty, residential segregation, zoning laws, the unavailability of low and moderate income housing, and the proximity of jobs and public services led them to move to host neighborhoods.⁸⁸

Professor Hamilton's analysis examined expansion decisions made five to six years after the census, and because expansion decisions share some of the same characteristics as initial siting decisions, his analysis provides some evidence of the correlation between siting decisions and the characteristics of affected communities near the time of those decisions. Professor Hamilton concluded that when other factors were controlled, the percentage of a county's population that was minority was not a statistically significant factor in the expansion decisions of the hazardous waste processing facilities. Race was a statistically significant determinant of the facilities' plans to reduce capacity, however: as the percentage of a county's minority population increased, the likelihood that the facility planned to reduce its capacity decreased. In addition, Professor Hamilton compared 1970 census data regarding the counties in which surveyed facilities were sited in the 1970s and early 1980s to census data for all counties in the United States. He found that both race and median household income were statistically significant predictors of sitings during the 1970's and early 1980's. *Id.* at 122.

Hamilton's study has several limitations: the sample included only those facilities sited in the 1970s and early 1980s that were still in operation in 1987; the data examined was for entire counties rather than the tracts or county subdivisions in which the facility was actually located; and the 1970 census data was used even for siting decisions made in the early 1980's. *See* Been, *supra* note 81.

⁸³ Pfaff, *supra* note 6, at 1A, 14A.

⁸⁴ GREENBERG & ANDERSON, *supra* note 55, at 156.

⁸⁵ *See* KENNETH T. JACKSON, CRABGRASS FRONTIER: THE SUBURBANIZATION OF THE UNITED STATES 283-84 (1985).

⁸⁶ Cynthia Hamilton, *Industrial and Environmental Racism: The Denial of Social Justice*, in ENVIRONMENTAL RACISM: ISSUES AND DILEMMAS 25, 26 (Bunyan Bryant & Paul Mohai eds., 1991).

⁸⁷ Austin & Schill, *supra* note 7, at 70.

⁸⁸ *See, e.g.*, BULLARD, *supra* note 8, at 6-8; LINEBERRY, *supra* note 9, at 58-60; Collin, *supra* note 11, at 508-09; Elson, *supra* note 6, at 47; Kay, *Ethnic Enclaves*, *supra* note 59, at A1; Pfaff, *supra* note 6, at 14A; Hawley Truax, *Minorities at Risk*, ENVTL. ACTION, Jan./Feb. 1990, at 19-20. To the extent that siting disparities are correlated more with a neighborhood's racial demographics than its income, the explanation that the availability of cheap housing surrounding LULUs is the cause of the disparity is seriously undermined. *See* Marianne Lavelle, *The Minorities Equation*, NAT'L L.J., Sept. 21, 1992, at S2.

By failing to examine the role that market dynamics have played in creating the current disparity in LULU sitings, proposals for reform target the siting process without first establishing that it is the cause of the problem.⁸⁹ In response, the mobility objection argues that more careful study of the cause and effect relationship between siting decisions and the disproportionate burden LULUs impose upon people of color and the poor is required before siting reform is attempted.⁹⁰

While study of the role mobility plays in distributing the burdens of LULUs is essential to a complete understanding of both the cause of distributional inequities and the solutions for those inequities, many reforms of siting processes need not await that study. Most of the theories of fairness discussed in this Article do not depend upon a finding that siting decisions in the past had a disproportionate effect.⁹¹ Unless these theories are rejected, it is appropriate to consider how to ensure that current siting decisions are fair even before research is completed on the cause of existing inequities in LULU distribution.

B. The Mobility Objection

The mobility objection simply asks whether siting decisions will have any enduring distributional effect, given the dynamics of the housing and land markets.⁹² For example, assume that on a given date, all LULUs then needed were dispersed "fairly" throughout society. Wealthier individuals would respond to the distribution by moving away from the LULUs.⁹³ Consequently, sites located in wealthier areas would eventually be surrounded by a ring of land deserted by wealthier families. The LULU would cause property values in that ring to be lower than in surrounding areas. The ring

⁸⁹ Both the CRJ and the GAO studies admit that they do not show cause and effect. See CRJ, *supra* note 46, at 11; GAO, *supra* note 41, at 3. For discussions of the failure to prove causation, see Hamilton, *supra* note 6, at 17-18; Lazurus, *supra* note 11, at 802 n.56.

⁹⁰ Examination of the role siting decisions played in the current siting pattern should include attention to "expulsive zoning" practices. See Collin, *supra* note 11, at 509; Jon C. Dubin, *From Junkyards to Gentrification: Explicating a Right to Protective Zoning in Low-Income Communities of Color*, 77 MINN. L. REV. 739, 744-64 (1993); Yale Rabin, *Expulsive Zoning: The Inequitable Legacy of Euclid*, in ZONING AND THE AMERICAN DREAM: PROMISES STILL TO KEEP 101 (Charles M. Haar & Jerold S. Kayden eds., 1989).

⁹¹ Only the compensatory justice theory, discussed *infra* at notes 248, 260-61, and accompanying text, rests on a finding that past siting decisions were unfair.

⁹² See Michael O'Hare, "Not on My Block You Don't": *Facility Siting and the Strategic Importance of Compensation*, 25 PUB. POL'Y 407, 454 (1977).

⁹³ For a survey of the evidence that residents chose a community in part because of the amenities it offers, or disamenities it avoids, see Vicki Been, "Exit" as a Constraint on Land Use Exactions: *Rethinking the Unconstitutional Conditions Doctrine*, 91 COLUM. L. REV. 473, 517-28 (1991).

would then become a ghetto of lower income households.⁹⁴ In short, the pattern of disproportionate siting would be re-created.⁹⁵ This dynamic could only be prevented by prohibiting people from moving, an infringement upon personal liberty and the market that few would espouse. Accordingly, the argument concludes, what is the point of fair siting proposals?

Four significant answers can be offered. First, as a matter of theory, the mobility objection is based on several assumptions about the real estate market that are not universally true. For example, the objection assumes that wealthy individuals will always flee LULUs.⁹⁶ In fact, the wealthy will move away only if the negative impact of the LULU is greater than the costs of relocating.⁹⁷ Relocation costs include the lost value of any remaining advantages of the property,⁹⁸ the costs of locating, buying, and moving to a new residence,⁹⁹ as well as any psychological costs of leaving a home and neighborhood to which the mover has grown attached.¹⁰⁰ Many LULUs will not impose a negative impact sufficient to outweigh those costs.¹⁰¹ Consequently, wealthier families will not necessarily flee every LULU, nor will all wealthy families in the neighborhood necessarily flee a particular LULU.¹⁰² Similarly, individuals will refuse to buy in the neighborhood only if they believe that the negative impact of the LULU is greater than the difference between the price of the house

⁹⁴ Some of the lower income people moving to the area surrounding the LULU will have been displaced from their old neighborhoods through gentrification. Wealthy people fleeing LULUs will be attracted to LULU-free neighborhoods occupied by the poor, and will be able to outbid the neighborhood's current residents for housing. O'Hare, *supra* note 92, at 454.

⁹⁵ Even if this readjustment dynamic could be prevented or tempered, the poor might gain environmental quality but lose on other measures of well-being. Because the siting program, absent readjustment, would result in a more diffuse pattern of siting, the difference between the land values in poor or minority neighborhoods and other neighborhoods might decrease, forcing tenants in poor or minority neighborhoods to pay higher rents. WILLIAM J. BAUMOL & WALLACE E. OATES, *THE THEORY OF ENVIRONMENTAL POLICY* 247 (2d ed. 1988).

⁹⁶ See O'Hare, *supra* note 92, at 454.

⁹⁷ For models of the decision to move away from a disamenity, see P.W. Abelson, *The Policy Problems and Economics of Aircraft Noise*, 11 *TRANSP. RES.* 357, 358-59 (1977); Chris Zeiss, *Municipal Solid Waste Incinerator Impacts on Residential Property Values and Sales in Host Communities*, 20 *J. ENVTL. SYS.* 229, 235-36 (1990-91).

⁹⁸ For example, the wealthy often are unwilling to forego the amenities of living in the center city, despite the disadvantages of greater pollution in the city. See *THE SOCIAL BURDENS OF ENVIRONMENTAL POLLUTION* 587 (Brian J.L. Berry ed., 1977).

⁹⁹ Zeiss, *supra* note 97, at 235.

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 252.

¹⁰² The negative impact of a LULU is unlikely to be the same for all families because their sensitivity to the negative impacts of a LULU will differ, depending upon their risk aversion, health, lifestyles, and tastes. See Zeiss, *supra* note 97, at 236. Even assuming that the negative impact of a LULU is the same for all families in a neighborhood, relocation costs will differ, causing some to stay even if others move.

and the prices of comparable available houses that are not near a LULU.¹⁰³ Not all LULUs will have such a significant impact.

Furthermore, under some conceptions of fairness, a fair distribution of LULUs would require that all neighborhoods bear some LULU burden.¹⁰⁴ Under such a siting program, the incentive to move away from a LULU would be reduced because no community would be immune from LULU siting.

The argument that LULUs decrease the market value of property also assumes that buyers and sellers of affected properties have perfect information about the negative impacts of a LULU.¹⁰⁵ That assumption is usually invalid, given the difficulty of assessing the risks posed by LULUs.¹⁰⁶ Where market participants do not have perfect information, property values may fall either more or less as a result of a LULU than if perfect information was available.¹⁰⁷

A second, less theoretical, answer to the mobility objection is that no solid factual foundation exists for the assertion that a LULU lowers surrounding property values significantly. Evidence regarding the impact of LULUs on neighboring property values is quite mixed.¹⁰⁸ Several studies show that hazardous waste sites have a

¹⁰³ Abelson, *supra* note 97, at 359; Hays B. Gamble & Roger H. Downing, *Effects of Sanitary Landfills on Property Values and Residential Development*, in *SOLID AND LIQUID WASTES: MANAGEMENT, METHODS AND SOCIOECONOMIC CONSIDERATIONS* 350, 357 (Shyamal K. Majumdar & E. Willard Miller eds., 1984).

¹⁰⁴ See *infra* notes 137-51 and accompanying text.

¹⁰⁵ See Zeiss, *supra* note 97, at 233.

¹⁰⁶ See, e.g., DEAR & TAYLOR, *supra* note 4, at 98-99, 115 (reporting that the vast majority of survey respondents were unaware that a mental health facility was near their home); Abelson, *supra* note 97, at 359 (reporting that 80% of those who had recently moved into a neighborhood plagued by aircraft noise believed that they had underestimated the noise in making their moving decisions, and that over 20% regretted their decision because of the noise); Gary H. McClelland, et al., *The Effect of Risk Beliefs on Property Values: A Case Study of a Hazardous Waste Site*, 10 *RISK ANALYSIS* 485, 492 (1990) (finding that 62% of recent purchasers were not aware of a nearby site when they bought their homes, despite local requirements for information disclosure to purchasers).

¹⁰⁷ If people react to uncertainty by overestimating the risks of a LULU, property values may fall by more than if perfect information about the risks were available.

¹⁰⁸ The studies reported here have focused on the property value effects of specific LULUs. More generally, studies of the effect of air pollution (often associated with noxious LULUs) on neighboring property values show some decline in property values as air pollution increases. See, e.g., Robert J. Anderson, Jr. & Thomas D. Crocker, *Air Pollution and Property Values: A Reply*, 54 *REV. ECON. & STAT.* 470 (1972) (presenting results of six different empirical studies, all of which found statistically significant negative relationships between air pollution and property values); Douglas B. Diamond, Jr., *The Relationship Between Amenities and Urban Land Prices*, 56 *LAND ECON.* 21, 29 (1980) (finding that higher levels of air pollution will depress land values); A. Myrick Freeman III, *Hedonic Prices, Property Values and Measuring Environmental Benefits: A Survey of the Issues*, 81 *SCANDINAVIAN J. ECON.* 154 (1979) (finding that in 13 of the 15 studies reviewed, property values were affected by air pollution, but criticizing the technical precision of all of the studies); Jonathan H. Mark, *A Preference Approach to Measuring the Impact of Environmental*

statistically significant adverse impact on neighboring property values,¹⁰⁹ while other studies have found little or no evidence of adverse impact.¹¹⁰ Furthermore, the evidence regarding the effect that nuclear power plants and nuclear waste transport routes and storage sites have on neighboring property values tends to indicate that such LULUs do not significantly depress neighboring property

Externalities, 56 LAND ECON. 103 (1980) (reviewing studies and finding that level of air pollution has a negative impact on property values); Hugh O. Nourse, *The Effect of Air Pollution on House Values*, 43 LAND ECON. 181 (1967) (finding that higher levels of air pollution generally will depress property values). But see V. Kerry Smith & Timothy A. Deyak, *Measuring the Impact of Air Pollution on Property Values*, 15 J. REGIONAL SCI. 277 (1975) (finding no statistically significant relationship between air pollution and median property values or rents in 85 cities). Similarly, water quality, which is also related to the presence of noxious LULUs, has been found to affect property values. Elizabeth L. David, *Lake Shore Property Values: A Guide to Public Investment in Recreation*, 4 WATER RESOURCES RES. 697 (1968).

¹⁰⁹ Ketkar, *supra* note 54, at 653 (finding presence of a hazardous waste site in a municipality to be negatively correlated with property values in municipality); Janet E. Kohlhase, *The Impact of Toxic Waste Sites on Housing Values*, 30 J. URB. ECON. 1, 11-19 (1991) (finding that prior to public announcement that a site had been placed on the EPA's National Priorities List for cleanup, the site either had no effect or a positive effect on nearby property values, but that after the announcement, the proximity of the site was significantly correlated with lower house values); McClelland, *supra* note 106, at 493-94 (finding a correlation between neighborhoods' assessments of the risk posed by a nearby landfill and property values); R. Gregory Michaels & V. Kerry Smith, *Market Segmentation and Valuing Amenities with Hedonic Models: The Case of Hazardous Waste Sites*, 28 J. URB. ECON. 223 (1990) (finding a statistically significant relationship between a house's distance from a publicized hazardous waste site and its price when data for an entire city housing market was studied, but finding no such relationship when the data was analyzed by submarkets); GERALD E. SMOLEN & GARY MOORE, ECONOMIC EFFECTS OF HAZARDOUS WASTE LANDFILLS ON SURROUNDING REAL ESTATE VALUES IN TOLEDO, OHIO (Ohio State Univ., Center for Real Estate Education & Research, Feb. 1991) (finding a strong negative relationship between proximity to a toxic waste landfill and sales price, for as far as five and three quarter miles from the site). See also V. Kerry Smith & William H. Desvousges, *The Value of Avoiding a LULU: Hazardous Waste Disposal Sites*, 68 REV. ECON. STAT. 293, 298 (1986) (using survey of suburban Boston households, rather than hedonic studies, to estimate that distance from a hazardous waste disposal site is valued at \$330 to \$495 per mile per year).

¹¹⁰ See David E. Clark & Leslie A. Nieves, *An Interregional Hedonic Analysis of Noxious Facility Impacts on Local Wages and Property Values* 20 (Nov. 1991) (unpublished paper on file with author) (finding that housing prices increased with the presence of hazardous waste sites). R. Gregory Michaels and V. Kerry Smith describe several studies finding no effect on housing prices, although their own study reaches the opposite conclusion. See Michaels & Smith, *supra* note 109, at 227-28 (reporting that K.J. Adler et al., *The Benefits of Regulatory Hazardous Waste Disposal: Land Values as an Estimator* (1982), found only limited evidence of a relationship between distance to a hazardous waste site and price in Pleasant Plains, New Jersey, and found no evidence of such a relationship in Andover, Minnesota); Michaels & Smith, *supra* note 109, at 228 (reporting that W. Schulze et al., *Improving Accuracy and Reducing Costs of Environmental Benefit Assessments* (1986), found a statistically significant relationship between distance from a hazardous waste site and price for one site, but found mixed results for two other sites); see also Michaels & Smith, *supra* note 109, at 234-35 (finding no statistically significant relationship between a house's distance from a publicized hazardous waste site and its sales price for several of the housing submarkets in the Boston area).

values.¹¹¹ Additionally, studies of the property value impacts of municipal solid waste incinerators and landfills are inconclusive.¹¹² The majority of studies about the effects that social service LULUs have on surrounding property values reveal no significant detrimental impact on surrounding property values,¹¹³ or neighborhood

¹¹¹ See, e.g., Hays B. Gamble & Roger H. Downing, *Effects of Nuclear Power Plants on Residential Property Values*, 22 J. REGIONAL SCI. 457, 463-69 (1982) (finding no evidence that nuclear power plants had any measurable effect on single family housing prices within 20 miles of four plants; finding that in the area surrounding the Three Mile Island plant, property values did show some relationship to distance from the plant, but that relationship was probably the result of variable misspecification; and finding that the Three Mile Island accident had no effect on housing values in the area in the nine months following the accident); Jon P. Nelson, *Three Mile Island and Residential Property Values: Empirical Analysis and Policy Implications*, 57 LAND ECON. 363 (1981) (finding no decline in prices, or slowdown in appreciation rates, in the property near the Three Mile Island plant in the nine months following the accident at the plant). But see Clark & Nieves, *supra* note 110, at 20 (finding that nuclear power plants have a strong negative influence on local housing prices); Smolen & Moore, *supra* note 109, at 17-20 (finding that an announcement that a low level radioactive waste landfill would be sited had a significantly adverse impact on neighboring property values); James R. Webb, *Nuclear Power Plants: Effects on Property Value*, 48 APPRAISAL J. 230 (1980) (in interviews of 26 residents living within five miles of a nuclear power plant following the Three Mile Island accident, 57% reported that they thought the accident had lowered their property values, and 54% thought that others would hesitate to buy the property).

See also Hays B. Gamble et al., *Community Growth Around Nuclear Power Plants*, 8 J. AM. REAL EST. & URB. ECON. 268 (1980) (finding that, at least until 1976, nuclear power plants had a positive impact on the host communities' rates of growth); Ronda K. Hageman, *Nuclear Waste Disposal: Potential Property Value Impacts*, 21 NAT. RESOURCES J. 789 (1981) (interviews with experts in 17 states with nuclear facilities or waste transport routes revealed only a few instances in which neighboring property owners claimed that the facility lowered their property values, and disclosed several instances in which either empirical studies or expert opinion had found no effect, or positive effects on neighboring property values).

¹¹² Six case studies concluded that incinerators and landfills significantly decrease property values in the surrounding neighborhood, but eight case studies found no demonstrable effects on property values, and one study found that the LULU had a positive effect on neighboring property values. See Zeiss, *supra* note 97, at 238-39 (reviewing the studies). Zeiss' own study of the property value impacts of an incinerator in Marion County, Oregon, found that the incinerator had no significant effect on the sales prices of homes within the area even after one and one-half years of operation.

¹¹³ See MENTAL HEALTH LAW PROJECT, *THE EFFECTS OF GROUP HOMES ON NEIGHBORING PROPERTY: AN ANNOTATED BIBLIOGRAPHY* 1-4, 7, 10-12 (1985) (surveying the literature, and indicating that group homes and community residential facilities do not adversely affect neighbors' property values or destabilize neighborhoods.). But see Gabriel & Wolch, *supra* note 62, at 346-47 (finding that residential facilities for adults and nonresidential mental health facilities have a substantial negative effect on the values of neighboring properties in white neighborhoods, and that both residential and nonresidential facilities for adults had a significant negative effect on property values in minority neighborhoods).

Some studies have found that group homes increase neighboring housing prices when the group home is located in areas with below average socioeconomic status. See, e.g., Stephen Farber, *Market Segmentation and the Effects of Group Homes for the Handicapped on Residential Property Values*, 23 URB. STUD. 519 (1986) (finding a statistically significant increase in the price of houses when a group home opened in below average socioeconomic areas with weak housing markets); Gabriel & Wolch, *supra* note 62, at 346-47

demographics.¹¹⁴ Even community correctional facilities have not been shown to decrease neighboring property values.¹¹⁵ Therefore, the current evidence does not establish that the fair siting of LULUs will cause a sufficient decrease in property values¹¹⁶ to encourage the reappearance of disproportionate siting patterns.¹¹⁷

(finding that nonresidential facilities for children have a positive effect on housing prices in both white and minority neighborhoods, and that residential facilities for children and youth increase housing prices in minority neighborhoods).

The other social service LULU that has been studied extensively is low and moderate income housing. A recent survey of the literature found 11 published studies regarding the effect of subsidized housing on neighboring property values; all but one found no negative effects, and many found positive price effects. CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, *THE EFFECTS OF SUBSIDIZED AND AFFORDABLE HOUSING ON PROPERTY VALUES: A SURVEY OF RESEARCH* (1988).

¹¹⁴ See GAO, *supra* note 41, at App. III, p. 62. In this national survey of group homes for the mentally disabled, 74% of the respondents reported that there had been little or no change in the number of residents leaving the neighborhood since the group home was established, and only 10% reported that there had been a moderate, great or very great change in migration. Additionally, 76% reported little or no change in the number of minority residents, and 88% reported little or no change in the number of blue collar workers in the neighborhood. The GAO study did not distinguish between survey responses of those group homes located in neighborhoods that already had a similar facility and those that were the first in the neighborhood; therefore, it is possible that the first home in a neighborhood may be associated with greater changes in migration or neighborhood demographics than subsequent homes. Cf. Michael Dear, *Impact of Mental Health Facilities on Property Values*, 13 *COMMUNITY MENTAL HEALTH J.* 150 (1977) (finding that the housing turnover rate increased after the opening of several mental health centers in Philadelphia, but that an expected decline in property values did not materialize).

¹¹⁵ See, e.g., Krajick, *supra* note 63, at 17.

¹¹⁶ The evidence also does not disprove a relationship between noxious LULUs and lower property values. There are several reasons why existing studies may have failed to capture significant property value effects of noxious LULUs. The depressing effect on property values that some LULUs might have could be counterbalanced by increased competition for housing, if the LULU increases local employment or brings many new residents into the area. Hageman, *supra* note 111, at 792, 803-04. The negative effect nuclear waste facilities or nuclear power plants may have on neighboring properties may be counterbalanced by residents' expectations of compensation under the Price Anderson Act, 42 U.S.C.A. § 2210(b) (1973 & 1993 Supp.), in the event of an accident. Hageman, *supra* note 111, at 803-04, 806; Nelson, *supra* note 111, at 370-71. Also, some of the studies were performed in the 1970s, before the public became sensitive to the environmental risks of noxious LULUs, and their results might be different if replicated today. Gamble & Downing, *supra* note 103, at 362. Alternatively, the indicators that the studies commonly use in measuring facility impacts, such as distance from the site, may be inappropriate. See Michaels & Smith, *supra* note 109, at 236; Zeiss, *supra* note 97, at 239, 253-55. The models used for the statistical tests also may be flawed. See Hageman, *supra* note 111, at 797-98; Michaels & Smith, *supra* note 109, at 239-41; Zeiss, *supra* note 97, at 253-55.

¹¹⁷ Even studies that support the argument that LULUs lower neighboring property values fail to support the next step in the mobility argument, which asserts that property values will decrease enough to alter the demographics of the neighborhood. Ketkar's study of the effect of hazardous waste sites on neighboring property values found that the value of the property decreased by only about two percent. Ketkar, *supra* note 54, at 653. Kohlhase's study found that the value of an average house would increase by roughly \$2369 if it were located one mile further away from a hazardous waste site. This

Third, the short term benefits of fair siting might make it appropriate to site LULUs more fairly, regardless of the possibility that the dynamics of the real estate market might eventually counteract the initially fair distribution. As just described, existing evidence provides little guidance on whether a LULU will cause neighborhood change; it provides even less guidance on the timing of such change.¹¹⁸ If the market is slow to change in response to a LULU, the advantages of a fair distribution over the short run might outweigh the potential long-term futility of the program.

Finally, even if the evidence showed that fair siting programs would be undermined by the market, the government may have a moral obligation to site LULUs fairly. Discrimination in the employment market against people of color does not relieve the government of its obligation to provide schools free from discrimination.¹¹⁹ Analogously, if the government has an obligation to distribute LULUs fairly, that obligation is not waived because some of the benefits of fair treatment will be dissipated by the unfairness of the private sector.

In sum, the mobility objection to fair siting is important because it suggests that siting strategies need to consider the dynamics of the real estate market in order to effect lasting changes in the distribution of LULUs. The objection does not, however, defeat the strength of the call for fairer siting programs.

C. The Aggregation Objection

The aggregation objection asks why the burden of LULUs should be viewed in isolation, without giving consideration to other burdens and benefits that neighborhoods suffer and enjoy.¹²⁰ A

amount, if annualized to reflect the typical mortgage, would yield a difference of about \$310 in yearly payments. Kohlhase, *supra* note 109, at 20. Those changes in values are unlikely to convert a middle class neighborhood into a low income ghetto.

¹¹⁸ The introduction of a LULU could immobilize a neighborhood for some time, because the existing residents may be unable to sell their homes for their expected price, and thus may choose to remain in their homes longer than planned. Wealthier residents will be more able to move away before selling their homes, however.

¹¹⁹ See *United States v. Scotland Neck City Bd. of Educ.*, 407 U.S. 484, 491 (1972) (fact that desegregating schools would lead to "white flight" does not relieve school district of its obligation to "uproot[]" the district's dual public school system.); *Mississippi Univ. for Women v. Hogan*, 458 U.S. 718, 729-30 (1982) (while market for nurses was such that 98% of all nurses are women, school could not exclude men from its program). *Cf. Barrows v. Jackson*, 346 U.S. 249, 253-54, 259 (1953) (while private discrimination in housing market is beyond the reach of the Equal Protection Clause, the government has an obligation not to enforce or sanction that discrimination); *Shelley v. Kraemer*, 334 U.S. 1, 13 (1948) (same).

¹²⁰ *Cf. BRUCE A. ACKERMAN, SOCIAL JUSTICE IN THE LIBERAL STATE* 242-46 (1980) (deciding whether two individuals are asked to make an equal sacrifice involves an "aggregation problem" because the question may not be answered solely by "see[ing] how those competing citizens fare in any single power domain."); Herman B. Leonard &

neighborhood burdened by a LULU may have better park facilities than non-host neighborhoods, or may have property taxes assessed at a lower percentage of actual value than non-host neighborhoods.¹²¹ Indeed, the neighborhood may be advantaged or disadvantaged, relative to other neighborhoods, by any number of the decisions that local, state and federal governments¹²² make about the delivery and financing of public services and the location of public facilities.¹²³ The aggregation objection asserts that the determination of whether a LULU has been sited fairly has to consider the aggregate effect of all those other benefits and burdens.¹²⁴

Such a requirement would paralyze any attempt to ensure fair siting. There are, however, several answers to this objection. First, it may be that some of the communities chosen to host LULUs are disadvantaged by all other government decisions as well, such that they receive no benefits that might offset unfair siting decisions. On those facts, as Bruce Ackerman has argued in an analogous context, "it is as easy as pie to add up each particular disadvantage into one outrageous violation" of principles of fairness.¹²⁵

Second, if most communities do not fit the simple model just described, the fairness of the overall distribution of benefits and burdens may be a matter of process, not mathematics. As long as the process by which each benefit and burden is distributed is fair, it is unnecessary to calculate and compare the net benefit or burden of

Richard J. Zeckhauser, *Cost-Benefit Analysis Applied to Risks: Its Philosophy and Legitimacy*, in *VALUES AT RISK* 31, 39-41 (Douglas Maclean ed., 1986) (advancing reasons that distributional issues should be handled on a systemic, aggregated basis).

¹²¹ A Texas study revealed that as the socioeconomic status of a San Antonio neighborhood increased, the difference between assessed value and actual value of property decreased, and effective tax rates were accordingly higher. Conversely, as the percentage of minority residents in the neighborhood increased, the difference between assessed and actual value increased, making effective tax rates lower. LINEBERRY, *supra* note 9, at 94-102.

¹²² A neighborhood also can enjoy benefits or suffer burdens that are only indirectly attributable to the government. If a neighborhood is plagued by crack houses or suffers from a higher crime rate, for example, then that neighborhood might reasonably claim that the decreased quality of life should be considered in determining the LULU burden it should bear.

¹²³ See S.M. MILLER & PAMELA A. ROBY, *THE FUTURE OF INEQUALITY* 84-108 (1970); LINEBERRY, *supra* note 9, at 14-15; David M. Smith, *Who Gets What Where, and How: A Welfare Focus for Human Geography*, 59 *GEOGRAPHY* 289, 294 (1974). For reviews of the evidence regarding the fairness of the distribution of public services, see LINEBERRY, *supra* note 9, at 41-42; Shoup, *supra* note 9, at 112-16.

¹²⁴ The aggregation objection is implicitly concerned with the legitimacy of removing a particular allocative decision from the majoritarian political process. That concern might counsel against judicial attempts to impose fair siting programs, absent a decision that the Constitution guarantees some minimal level of environmental quality or that it forbids disproportionate siting. The focus of this Article, however, is on legislative fair siting proposals.

¹²⁵ ACKERMAN, *supra* note 120, at 242.

each community. To be fair, however, the process might have to vary depending upon the type of benefit or burden at issue. This answer to the aggregation objection could draw upon recent thinking about when just compensation should be paid for those burdened by government regulation.¹²⁶ These theories suggest that distributive decisions affecting large numbers of individuals might appropriately be made through the usual legislative process, subject perhaps to constraints upon the power of special interests.¹²⁷ Individuals affected by such broad-based allocation proposals could join with others and engage in log-rolling to protect their interests.¹²⁸ On the other hand, decisions that disadvantage a small group of people who are unable to protect themselves by joining coalitions may require a process that is more solicitous of the interests of the group.¹²⁹ Siting decisions may well require such constraints.

Full development of these answers to the aggregation objection is beyond the scope of this Article. The remainder of the Article therefore assumes that further examination will persuasively rebut the aggregation objection.

D. The Free Market Objection

This final objection asserts that the benefit of living far from LULUs should be allocated through the free market, just as the benefit of living near pristine mountain lakes or beautiful city parks is allocated. Similarly, it asserts, the burden of living near a LULU should be allocated through the same market that allocates the burden of working in relatively unsafe or otherwise undesirable jobs.

Some burdens imposed by the legislative and executive branches are not allocated through the free market, however. Jury duty is an example, as is military service under a draft.¹³⁰ Similarly, the government does not allocate some benefits, such as health care and education, solely through the free market, recognizing instead

¹²⁶ See, e.g., Daniel A. Farber, *Economic Analysis and Just Compensation*, 12 INT'L REV. L. & ECON. 125 (1992); William A. Fischel, *Exploring the Kozinski Paradox: Why Is More Efficient Regulation a Taking of Property?*, 67 CHI-KENT L. REV. 865, 887-94 (1991); Saul Levmore, *Takings, Torts, and Special Interests*, 77 VA. L. REV. 1333, 1355-60 (1991) [hereinafter, Levmore, *Takings*]; Saul Levmore, *Just Compensation and Just Politics*, 22 CONN. L. REV. 285 (1990).

¹²⁷ Levmore, *Takings*, *supra* note 126, at 1355. For a review of the literature regarding the power of special interest groups to capture the legislature or administrative agency and impose costs broadly on the majority, see DANIEL A. FARBER & PHILIP P. FRICKEY, *LAW AND PUBLIC CHOICE* 12-37 (1991).

¹²⁸ See Fischel, *supra* note 126, at 893; see also Frank I. Michelman, *Political Markets and Community Self-Determination: Competing Judicial Models of Local Government Legitimacy*, 53 IND. L.J. 145, 158-77 (1977-78).

¹²⁹ See Fischel, *supra* note 126, at 893; Levmore, *Takings*, *supra* note 126, at 1356.

¹³⁰ See *infra* note 146 and accompanying text; see also MICHAEL WALZER, *SPHERES OF JUSTICE* 100-03 (1983).

that either some minimal level of benefit must be allocated to those who could not purchase the benefit in an unregulated market, or that the allocation must be removed from the market entirely.¹³¹ One way to counter the free market objection, then, would be to draw upon the justifications given for those exceptions to the market.¹³² In order to reach the issue of how different conceptions of fairness translate into siting programs, this Article will assume *arguendo* that compelling justifications for regulating or supplanting the market can be found in those analogies.

III

THE MEANING OF FAIRNESS—THE THEORETICAL BASES FOR FAIR SITING PROPOSALS

Having addressed the general objections to the goal of siting reform, it is now appropriate to discuss the theoretical bases for that goal. This Section attempts to articulate and analyze the most plausible theories about what fairness requires in the context of siting.¹³³ Most of the theories discussed have not been specifically espoused by proponents of fair siting proposals. Environmental justice advocates have been very vague about the theories of fairness underlying their calls for fair siting.¹³⁴ Accordingly, while some of

¹³¹ See GUIDO CALABRESI & PHILIP BOBBITT, TRAGIC CHOICES 34-44, 83-127, 186-89 (1978).

¹³² The issue here is not whether the Constitution requires that the burden of LULUs be allocated through a non-market mechanism. Instead, this Article focuses on legislative proposals for siting reform. Unless such legislation would effect a taking of property, or violate the requirement of equal protection, the Constitution would not be implicated in legislative decisions to eschew or regulate the market in the allocation of the burden of LULUs.

¹³³ I do not survey accounts of justice that are too indeterminant to guide fairness in siting, such as theories of highest total or average utility. For a discussion of the general difficulty of evaluating specific policies from a utilitarian premise, see, e.g., JOHN RAWLS, A THEORY OF JUSTICE 90-91 (1971); Richard A. Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103, 112-15 (1979). In the siting context, utilitarianism is generally associated with the assumption that fairness concerns are satisfied if the site chosen for a LULU is the scientifically and technologically best site possible. See, e.g., MARY R. ENGLISH, SITING LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITIES 130-31, 150-51 (1992). This application of utilitarianism assumes that the designation of the technologically best site is a value-free, apolitical process, and that all appropriate measures of utility are included in the technological siting criteria. Neither assumption bears any relationship to the reality of the siting process.

¹³⁴ Calls for "fair" siting may be deliberately vague because the rhetorical force of the calls may be compromised by attempts to specify their content. See *supra* text accompanying note 22. Alternatively, advocates may view the principled basis for the call as "self-evident." See, e.g., Joseph L. Sax, *The Search for Environmental Rights*, 6 J. LAND USE & ENVTL. L. 93, 96 (1990) ("When assertions of environmental rights are made, the assumption often seems to be that the principled basis for them is self-evident and need not be identified or explained. The result is to leave an aura of ambiguity around most such declarations.").

the theories discussed can be inferred from the advocates' general statements, they cannot be directly attributed to the advocates. On the other hand, some of the theories of fairness that provide logical support for fair siting proposals have been disavowed by environmental justice advocates as a matter of principle.¹³⁵ For purposes of organization, the fairness arguments are clustered around three different aspects of LULU distribution: the pattern of the distribution; the efficiency of the distribution; and the procedure by which the distribution was effected.¹³⁶

A. Fairness in the Pattern of Distribution

1. *Fairness Requires Equal Division—A Per Capita or Proportional Distribution of the Burdens of LULUs*

A broad conception of fairness in siting would require that a LULU's burdens be spread on a per capita or proportional¹³⁷ basis over society as a whole.¹³⁸ This fairness concept is implicit in the contention that LULUs are inequitably sited if the percentage of LULUs in minority neighborhoods is disproportionate to the percentage of minorities in the nation's population.¹³⁹ It is also inherent in the calls by the environmental justice movement demanding that people of color receive an "equitable distribution of 'healthy' physical environments"¹⁴⁰ and that no neighborhood bear more than its proportionate share of LULUs.¹⁴¹

¹³⁵ See *infra* note 202 and accompanying text.

¹³⁶ Cf. NICHOLAS RESCHER, DISTRIBUTIVE JUSTICE 87 (1966) (discussing the facets of distribution an adequate theory of distributive justice must address).

¹³⁷ A proportional distribution could be based on ability to pay, or on the extent to which the payor's activities created the need for the LULU. For discussions of the differences between per capita and proportional distributions, see WESTEN, *supra* note 22, at 52-56, 150-53. The term "proportional distribution" is used in the remainder of this article to capture both notions of distribution.

¹³⁸ The environmental justice movement does not call for "equal pollution," but focuses on preventing pollution and achieving equity in siting LULUs that cannot be avoided at acceptable cost. See, e.g., Deohn Ferris, *A Challenge to EPA*, 18 EPA J. 28 (1992) ("The keystone of this quest for justice is equal protection, not equal pollution."); Lavelle & Coyle, *supra* note 39, at S2 (The environmental justice movement "calls not for 'equity' in the face of pollution, but for prevention and equal protection."). The equal division theory, therefore, assumes that the LULUs being sited are a necessary evil.

¹³⁹ See, e.g., CRJ, *supra* note 46, at xiv (siting process unfair because three of five largest commercial hazardous waste landfills are located in predominantly black or Hispanic communities); Bullard & Wright, *supra* note 12, at 306 (siting process unfair because more than three-fourths of Houston's solid waste sites were located in black neighborhoods, even though African Americans made up only one-fourth of the population).

¹⁴⁰ Robert D. Bullard, *Environmental Equity*, LAND USE FORUM, Winter 1993, at 6, 11.

¹⁴¹ See, e.g., ENVIRONMENTAL EQUITY WORKGROUP, U.S. ENVTL. PROT. AGENCY, ENVIRONMENTAL EQUITY: REDUCING RISK FOR ALL COMMUNITIES 6-7 (1992) [hereinafter E.P.A. WORKGROUP REPORT I] (Draft, Feb. 1992) (William Reilly, Administrator of the

There are strong and weak versions of the equal division conception of fairness. Under the strong version, fairness demands a proportional distribution of benefits.¹⁴² Because exemptions from social burdens are benefits, it follows that burdens such as LULUs should be proportionally distributed.¹⁴³ No individual or community of individuals is more deserving of the benefit of living in a LULU-free neighborhood than any other, so fairness requires that all receive that benefit equally.¹⁴⁴

A weaker version of the theory asserts that fairness requires a proportional distribution of burdens, even if benefits are not allocated proportionally.¹⁴⁵ The United States embraces this view regarding societal burdens, such as jury duty and military service under a draft.¹⁴⁶ This version of the theory assumes that an objective distinction can be drawn between burdens and the absence of benefits, and that the distinction mandates an equal division of burdens regardless of the distribution of benefits.¹⁴⁷

EPA has stated as "official EPA policy" that "[t]he consequences of environmental pollution should not be 'borne disproportionately' by any segment of population."). For academic suggestions that siting decisions should be based upon a proportionality theory of fairness, see Roger E. Kasperon et al., *Confronting Equity in Radioactive Waste Management: Modest Proposals for a Socially Just and Acceptable Program*, in EQUITY ISSUES IN RADIOACTIVE WASTE MANAGEMENT 331, 335 (Roger E. Kasperon ed., 1983) [hereinafter EQUITY ISSUES].

¹⁴² See Charles Taylor, *The Nature and Scope of Distributive Justice*, in JUSTICE AND EQUALITY HERE AND NOW 34, 52-67 (Frank S. Lucash ed., 1986) (discussing the difficulties of strict egalitarianism).

¹⁴³ See Lewis A. Kornhauser & Lawrence G. Sager, *Just Lotteries*, 27 SOC. SCI. INFO. 483, 484 (1988) (social benefits include the benefit of being exempt from a social burden).

¹⁴⁴ Another version of this strong claim asserts that every individual is entitled to a minimum level of the benefit; therefore, distribution must be equal until that minimum is attained, but may be unequal thereafter. See, e.g., Sax, *supra* note 134, at 95 (efforts to establish environmental rights seek to assure some level of freedom from environmental hazards).

¹⁴⁵ The argument that burdens should be distributed fairly may take at least two forms. One argument is consequentialist—burdens should be distributed fairly because people are more likely to bear their fair share if they believe that others similarly situated are doing the same. GEORGE KLOSKO, *THE PRINCIPLE OF FAIRNESS AND POLITICAL OBLIGATION* 180-84 (1992). A second argument is deontological—burdens should be distributed fairly because it is immoral to enjoy the benefits of a cooperative venture without bearing a fair share of the burdens. *Id.* at 33-35.

¹⁴⁶ See JAMES FALLOWS, NATIONAL DEFENSE 126-34 (1981); CALABRESI & BOBBITT, *supra* note 131, at 157-67; RAWLS, *supra* note 133, at 380-81; Thomas J. Bradley, Note, *The All Volunteer Force, Conscriptioin, and Other Alternatives*, 7 J. LEGIS. 125, 130 (1980). The United States espouses the principle that military service is an obligation that should be shared by all men in society, but the draft was far from representative during the Vietnam war. FALLOWS, *supra*, at 130. Today's all volunteer force remains unrepresentative. Charles C. Moskos, *Making the All-Volunteer Force Work: A National Service Approach*, 60 FOREIGN AFF. 17, 19-22 (1981).

¹⁴⁷ For discussions of the difficulty of distinguishing between benefits and burdens in the analogous area of Fifth Amendment takings jurisprudence, see Donald W. Large, *The Supreme Court and the Takings Clause: The Search for a Better Rule*, 18 ENVTL L. 3, 15, 29-

It is unnecessary to tackle the strong version of the theory here, because if the burdens of LULUs are proportionally distributed, the concomitant benefit of being free of those burdens will necessarily be proportionally distributed.¹⁴⁸ This article thus focuses on the narrower argument that the burden of living next to LULUs must be proportionally distributed.

Several means of distribution are plausible under the proportional distribution of burden theory. One scheme would impose a *physical* proportional distribution: LULUs themselves would be distributed equally among neighborhoods. This distribution could be either equal *ex post* or equal *ex ante*. In an *ex post* scheme, the facilities and the harms that they pose would be distributed proportionately among neighborhoods. For example, if New York City requires facilities for 10,000 homeless individuals and has 100 neighborhoods, all holding some land suitable for a facility, each neighborhood would receive one facility housing 100 individuals. In an *ex ante* scheme, each neighborhood has an equal chance of being selected for the site through a lottery process.¹⁴⁹ For example, if New York City requires a sewage sludge treatment plant, each of the 100 neighborhoods would have a 1/100 chance of being selected for the site. The *ex ante* physical distribution scheme is particularly well-suited to situations in which there are economies of scale in building and operating fewer but larger LULUs. Some types of hazardous waste, for example, are stored most efficiently in large, centralized facilities. To accommodate such efficiency considerations, most neighborhoods should be spared the burden of having the facility nearby.¹⁵⁰ A lottery procedure can ensure that although most neighborhoods will not have to host the site, all have an equal chance of being selected as the host site. The lottery accordingly achieves equality of opportunity before the actual distribution.¹⁵¹

34 (1987); Frank Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165, 1196-201 (1967); Jeremy Paul, *The Hidden Structure of Takings Law*, 64 S. CAL. L. REV. 1393, 1438-65 (1991); Joseph L. Sax, *Takings and The Police Power*, 74 YALE L.J. 36, 48-50 (1964); Roger B. Stoebe, *Police Power, Takings, and Due Process*, 37 WASH. & LEE L. REV. 1057, 1061-62 (1980).

¹⁴⁸ The theory that fairness requires an egalitarian distribution of benefits is more at odds with the free market objection discussed *supra* notes 130-32 and accompanying text than any of the other theories surveyed in this Article.

¹⁴⁹ For an explanation of the concepts of *ex ante* and *ex post* equity, see Donald T. Hornstein, *Reclaiming Environmental Law: A Normative Critique of Comparative Risk Analysis*, 92 COLUM. L. REV. 562, 595 (1992); L. Robin Keller & Rakesh K. Sarin, *Equity in Social Risk: Some Empirical Observations*, 8 RISK ANALYSIS 135 (1988).

¹⁵⁰ For discussions of the problem of indivisible goods, see RESCHER, *supra* note 136, at 93-95.

¹⁵¹ *Id.* at 94. For a discussion of what form such a lottery would have to take to ensure that it provided an equal chance to each of the neighborhoods, see Kornhauser & Sager, *supra* note 143, at 485-92. For discussions of the fairness of using lotteries, see

Instead of either *ex ante* or *ex post* physical equality, a distribution might seek "compensated" equality. In this distribution scheme, all individuals or communities that gain a net benefit from a particular LULU must compensate those who suffer a net loss.¹⁵² For example, if a sludge treatment plant imposed costs upon a neighborhood, each of the neighborhoods that benefitted from the plant, but did not suffer the detriment of close proximity, would have to pay a proportionate share of the costs.¹⁵³ Compensated equality can operate either *ex ante* or *ex post*. In an *ex ante* scheme, the siting neighborhood would be compensated for the expected loss that the site might inflict, even though the loss might never occur. In an *ex post* scheme, the siting neighborhood would be compensated only as injuries occurred. Compensation could be in the form of cash,¹⁵⁴ neighborhood amenities, insurance, or indemnification.¹⁵⁵ Compensation also could include "risk substitution," involving commitments to reduce some other burden borne by the community, such as a landfill developer's promise to clean up existing waste dumps.¹⁵⁶ The amount and nature of the compensation would be determined either by a government authority, such as an administrative agency, or by the affected neighborhood itself.¹⁵⁷

The conceptual and practical problems with both the physical and the compensated proportional schemes are formidable. The difficulties with the proportional siting schemes are examined first.

BARBARA GOODWIN, JUSTICE BY LOTTERY 43-77 (1992); Kornhauser & Sager, *supra* note 143, at 492-509; Allan Mazur, *Peer Review, Letters from Readers*, 32 SCIENCES 5 (1992) (proposing lottery of LULUs).

¹⁵² For a discussion of the role of compensation in ensuring fairness, see ROBERT NOZICK, ANARCHY, STATE AND UTOPIA 78-84 (1974).

¹⁵³ The compensated equality mechanism could apply in all sitings, or could be limited to disproportionate sitings. For example, if nine out of the relevant 10 neighborhoods already have one homeless shelter, the tenth neighborhood would not be compensated for taking a shelter that would bring it to the same level as the others. But if two shelters were located in the tenth neighborhood, so that it then had more than any other neighborhood, it would be entitled to compensation.

¹⁵⁴ See, e.g., Herbert Inhaber, *Of LULUs, NIMBYS, and NIMTOOs*, 107 PUB. INTEREST 52, 63 (1992) (Modern Landfill Incorporated offered all citizens of Lewiston, New York \$960 each annually for a period of twenty years for the right to expand a landfill).

¹⁵⁵ For descriptions of forms of compensation other than cash, see Arthur M. Sullivan, *Victim Compensation Revisited*, 41 J. PUB. ECON. 211, 211-12 (1990); Zeiss, *supra* note 97, at 237-38.

¹⁵⁶ PORTNEY, *supra* note 3, at 137-59; Bradford C. Mank, *The Two-Headed Dragon of Siting and Cleaning Up of Hazardous Waste Dumps: Can Economic Incentives or Mediation Slay the Monster?*, 19 B.C. ENVTL. AFF. L. REV. 239, 273-74 (1991).

¹⁵⁷ If the government determined the compensation, the host community would enjoy liability rule protection of its right to compensation. If the host community determined the compensation, it would enjoy property rule protection of that right. For discussion of the merits of each rule, see Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

a. *Physical Dispersion of Sites*

Both *ex post* and *ex ante* physical dispersion schemes are flawed in three major respects. First, they focus on the rights of neighborhoods and ignore the rights of individuals within them. Second, the fairness they offer may unravel if some communities lack suitable land for the LULU being distributed. Third, they pose extraordinary difficulties of measurement and definition.

i. *The Rights of Individuals*

Physical distribution schemes distribute LULUs among neighborhoods, not among individuals. Therefore, people living right next to a LULU will bear a greater share of the burden than others,¹⁵⁸ even though their neighborhood's share of LULUs is considered fair.¹⁵⁹ Advocates of physical distribution schemes must explain to those individuals who are disproportionately affected why they lack the right to a fair distribution of burdens, even though a neighborhood has that right.¹⁶⁰

ii. *The Availability of Suitable Land*

Physical distribution schemes assume that every neighborhood contains some land equally suitable for the LULU. In reality, some communities contain land that is less suitable than that found in other neighborhoods.¹⁶¹ Those qualitative differences in available land create opportunities for unfair distribution. Determining the suitability of a potential site for a particular kind of LULU involves articulating the criteria for evaluating the sites and specifying the

¹⁵⁸ It could be argued that physical distribution schemes may violate individual rights by reducing the value of some of the property purchased or rented prior to the implementation of such a scheme. If a LULU affects neighboring property values (but see *supra* notes 108-17 and accompanying text), the price of property should be based in part upon the market's assessment of the risk that a LULU will be sited near the property. People who bought property in neighborhoods at low risk for LULUs therefore will lose part of their investment if a physical siting scheme is implemented and the probability that the neighborhood will be asked to host a LULU increases. The reduction in value is unlikely to be considered a violation of the Fifth Amendment's Just Compensation Clause, however, except in the unlikely event that the change to a physical siting scheme would completely destroy the value of a property. See *Lucas v. South Carolina Coastal Comm'n*, — U.S. —, 112 S. Ct. 2886, 2895 (1992). For an analysis suggesting that no compensation should be paid for such a reduction in value, see Louis Kaplow, *An Economic Analysis of Legal Transitions*, 99 HARV. L. REV. 509, 527-32, 602-06 (1986).

¹⁵⁹ See LINEBERRY, *supra* note 9, at 36-37; Janet K. Boles, *Urban Equality: Definitions and Demands*, in *THE EGALITARIAN CITY: ISSUES OF RIGHTS, DISTRIBUTION, ACCESS, AND POWER 4* (Janet K. Boles ed., 1986).

¹⁶⁰ For discussion of the theory of group rights against discrimination, see Owen M. Fiss, *Groups and the Equal Protection Clause*, 5 PHIL. & PUB. AFF. 107, 147-77 (1976); Vernon Van Dyke, *Justice as Fairness: For Groups?*, 69 AM. POL. SCI. REV. 607 (1975).

¹⁶¹ See, e.g., GREENBERG & ANDERSON, *supra* note 55, at 214-22.

weight of each criterion.¹⁶² The siting decisionmaker then must apply the criteria to specific sites and determine how to rank the potential sites. Neighborhoods obviously would seek exclusion from the list of potentially suitable sites by attempting to influence either the substance or weighting of the criteria used to exclude or rank the sites, or the manner in which the criteria are applied.¹⁶³ If such politicking were allowed, the current siting distribution would be replicated, because the same groups that currently have political power sufficient to avoid sites could skew the process of identifying suitable sites to their advantage.¹⁶⁴

iii. *Problems of Measurement and Definition*

Both the *ex ante* and *ex post* mechanisms for physically distributing LULU burdens face significant problems of definition and measurement.¹⁶⁵ Such problems alone do not completely discredit the physical distribution of burden theory. The theory of equal physical distribution may be worth pursuing even if it requires line-drawing that is somewhat arbitrary, and even if it relies upon measurements that are primitive. The definitional and measurement problems, however, illuminate the requirements of the theory and specify what needs to be done to make the theory workable.

First, what criteria should be used to compare the burdens of the LULUS to be distributed?¹⁶⁶ Depending upon the basis of comparison, even the same type of facility may impose different types or levels of burden upon various communities. Two neighborhoods hosting identical hazardous waste treatment plants, for example,

¹⁶² John A.S. McGlennon, *A Model Siting Process and the Role of Lawyers*, 17 NATURAL RES. LAWYER 463, 464-65 (1984). For an illustrative description of the types of criteria that might be used in determining the suitability of land for low and moderate income housing, see DAVID LISTOKIN, FAIR SHARE HOUSING ALLOCATION 58 (1976). For the criteria used to determine suitability of land for hazardous waste sites, see GREENBERG & ANDERSON, *supra* note 55, at 175-78.

¹⁶³ For a description of the contentiousness of the application of criteria to determine sites appropriate for radioactive and nuclear waste facilities, see ENGLISH, *supra* note 133, at 120, 122-23, 134; Richard H. Bryan, *The Politics and Promises of Nuclear Waste Disposal: The View From Nevada*, 29 ENV'T, Oct. 1987, at 14, 16-35. For examples of communities that have gained exclusion from consideration for sites, see, e.g., Denise Provost, *The Massachusetts Hazardous Waste Facility Siting Act: What Impact on Municipal Power to Exclude and Regulate?*, 10 B.C. ENVTL. AFF. L. REV. 715, 721 & n.43 (1982-83).

¹⁶⁴ THE NOT-IN-MY-BACKYARD SYNDROME 212 (Audrey Armour ed., 1984).

¹⁶⁵ For a discussion of the need for definitional rules and measurement procedures to assess the fairness of any system of distribution, see MORTON DEUTSCH, DISTRIBUTIVE JUSTICE 3-4, 33-34 (1985); WESTEN, *supra* note 22, at 14-15. For a discussion of the difficulty of measurement in the analogous area of urban service delivery, see LINEBERRY, *supra* note 9, at 69-70.

¹⁶⁶ In order to compare burdens, it must be possible to assess the burden of each LULU by some standardized procedure. For a discussion of this difficulty, see *infra* note 198 and accompanying text.

might bear different burdens if the basis of comparison is health risk, because the geology or transportation networks or composition of the workforce of one area could make one plant somewhat riskier than the other.¹⁶⁷ Some criteria, such as health risk or loss in property value, are obvious grounds for comparison. But others, such as psychological harms or interference with social networks, are controversial.¹⁶⁸

When the LULUs being compared are different, such as a prison and a sludge treatment plant,¹⁶⁹ comparisons will require agreement on how different criteria are to be weighted or reduced to some common metric such as dollar loss.¹⁷⁰ Whether and how to translate burdens such as health risks to monetary terms is also a controversial issue.¹⁷¹

Second, how should "neighborhood" be defined for the purposes of calculating how burdens are distributed? The political jurisdiction allocating the burden¹⁷² could apportion the burden on a per person basis; by land area; according to political boundaries; on the basis of who benefits from the LULU; or through a formula that attempts to capture all these measures.¹⁷³ Each of these definitions

¹⁶⁷ See, e.g., Inhaber, *supra* note 154, at 58 (each LULU is a "unique combination of calculated risks, geology, nearby population, [and] engineering design").

¹⁶⁸ See Denis J. Brion, *An Essay on LULU, NIMBY, and the Problem of Distributive Justice*, 15 ENV'T'L AFF. 437, 471-94 (1988); Michael B. Gerrard, *Fear and Loathing in the Siting of Hazardous and Radioactive Waste Facilities: A Comprehensive Approach to a Mis-perceived Crisis* 100-01 (Jan. 21, 1993) (unpublished draft, on file with author).

¹⁶⁹ One approach to the problem of measuring the burden of various LULUs would be to survey a random sample of individuals about their perception of the LULUs' relative undesirability. One problem with that approach, however, is the fluctuation in people's views over time. Attitudes toward people with AIDS and the decreasing sympathy shown the homeless are two recent examples. See Dear, *supra* note 3, at 291. Any distribution of LULUs based on "public opinion polls" about the acceptability of different LULUs thus would require frequent readjustments. Additionally, the acceptability of various facilities often depends upon such facility characteristics as size, appearance, operating procedures, and reputation of the sponsoring agency. *Id.* at 292-93; DEAR & TAYLOR, *supra* note 4, at 27; Jaffe & Smith, *supra* note 62, at 10-11. Unless survey respondents were given information about such characteristics, the survey's ranking of burdenedness would be inaccurate.

¹⁷⁰ See ACKERMAN, *supra* note 120, at 240-42 (discussing the problems of "particular comparison").

¹⁷¹ See, e.g., Margaret J. Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849, 1879-86 (1987).

¹⁷² Determining the appropriate political entity to allocate the burden raises difficult questions about the relative efficiency, accountability, competitiveness, and representativeness of different levels of government. Les Daniels, *The Role of Governments as Suppliers of Neighborhoods*, in *THE ECONOMICS OF NEIGHBORHOOD* 147, 149-50 (David Segal ed., 1979); John E. Jackson, *Public Needs, Private Behavior, and Metropolitan Governance: A Summary Essay*, in *PUBLIC NEEDS AND PRIVATE BEHAVIOR IN METROPOLITAN AREAS* 1, 26-28 (John E. Jackson ed., 1975).

¹⁷³ See LISTOKEN, *supra* note 162, at 180 (describing the housing allocation plan of the Pueblo (Colorado) Area Council of Governments).

of neighborhood has advantages and disadvantages in terms of fairness.¹⁷⁴

In addition, some LULUs do not confine their impact to a particular location, but impact several political jurisdictions.¹⁷⁵ This further complicates the definition of neighborhood. Further, a definition of neighborhood that is appropriate for a land use that benefits a state or large region may be inappropriate for a land use that benefits a few square blocks within a city. Accordingly, what constitutes a "neighborhood" depends upon the type of LULU at issue.

Third, what type of equality is required: equality of treatment or equality of results? Assume, for example, that an incineration facility is needed to dispose of 1000 units of medical waste, and two neighborhoods have suitable sites. The sites are identical except that one of the neighborhoods is predominantly African American while the other is predominantly white. Proportional division would require that each community host a facility with a capacity of 500 units. The predominantly African American community might argue, however, that formal equality is insufficient because African Americans have statistically poorer health than whites.¹⁷⁶ Therefore, the added risk posed by the facility has a greater impact upon the African American community than upon the white community.¹⁷⁷ Equality of result would require that the impact of the siting be equal, even if that means inequality of treatment.¹⁷⁸

Fourth, how should issues of need affect the distribution of burdens? To illustrate, if a neighborhood has a disproportionate

¹⁷⁴ For an illustrative discussion of the advantages and disadvantages of various definitions of region for the purpose of allocating low and moderate income housing, see *id.* at 31-39.

¹⁷⁵ See, e.g., ENGLISH, *supra* note 133, at 134 (describing the disputes within the Southeast Compact regarding the problems presented when a facility located near the border of one state has spillover effects in other states).

¹⁷⁶ For discussions of the health status of African Americans, see STEPHANIE POL-LACK & JOANN GROZUCZAK, REAGAN, TOXICS AND MINORITIES 1 (1984); E.P.A. WORKGROUP REPORT I, *supra* note 141, at 11-12; U.S. ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL EQUITY: REDUCING RISK FOR ALL COMMUNITIES, VOL. 2: SUPPORTING DOCUMENT 4-6 (1992); Cole, *supra* note 7, at 630-31; Beverly Hendrix Wright, *The Effects of Occupational Injury, Illness and Disease on the Health Status of Black Americans: A Review*, in INCIDENCE, *supra* note 23, at 114.

¹⁷⁷ For examples of this argument by environmental justice advocates, see CRJ, *supra* note 46, at 7. See also E.P.A. WORKGROUP REPORT I, *supra* note 141, at 27-28 (recommending that the EPA target high risk populations for special enforcement and rulemaking attention).

¹⁷⁸ This formal equality versus result equality debate is analogous to the equality of resources versus equality of welfare debate in the literature concerning distributions of benefits. See, e.g., Ronald Dworkin, *What is Equality? Part 1: Equality of Welfare*, 10 PHIL. & PUB. AFF. 185, 186-87 (1981). It also resembles the equality of inputs versus equality of outputs debate in the literature concerning educational financing. See, e.g., LINEBERRY, *supra* note 9, at 31-33; James Coleman, *The Concept of Equality of Educational Opportunity*, 38 HARV. EDUC. REV. 7, 18-22 (1968).

number of a city's AIDS victims, is that neighborhood's fair share of AIDS service facilities greater than that of a neighborhood with fewer residents infected with the disease? The neighborhood with a greater need might consider the facility a benefit rather than a burden. Indeed, the neighborhood might consider it unfair to locate the facility elsewhere because of the inconvenience and expense to residents served by the facility. On the other hand, considerations of need are likely to relegate many social service LULUs to poor communities, where a disproportionate number of clients live.¹⁷⁹ Those communities may argue that they are no more responsible for the plight of those needing social services than residents of wealthier neighborhoods, and, therefore, should bear no more of the burden of helping those people. In addition, imposing a greater LULU burden on neighborhoods because of their greater need may encourage communities to exclude the poor or other needy residents.¹⁸⁰

It may seem more justifiable to take need into account when siting LULUs such as landfills, but even that approach is controversial. Communities with factories that produce large amounts of waste may legitimately argue that their goods provide widespread benefits, so that they alone should not bear the burden of disposal.¹⁸¹ Additionally, taking need into account in siting waste disposal facilities may perpetuate the unfair effects of earlier siting decisions, because the generators of waste often are disproportionately located in low income and minority communities.¹⁸²

Fifth, should the benefits that a neighborhood receives from a LULU be considered in assessing the burdens the LULU imposes? Some LULUs employ neighborhood residents or purchase goods or

¹⁷⁹ See LISTOKIN, *supra* note 162, at 56-57. Similarly, the siting of correctional facilities based upon measures of "need" (such as the prior residence of prisoners) may skew the distribution of facilities towards certain communities. For a revealing discussion of California's fair share parole legislation, which requires that prisoners be paroled only to the county in which the crime was committed, see Walter L. Barkdull, *Parole and the Public: A Look at Attitudes in California*, 52 FED. PROBATION 15, 15-16 (1988).

¹⁸⁰ The desire to avoid the burden of supplying facilities to meet the needs of the poor is one explanation for the practice of exclusionary zoning. See DUANE WINDSOR, *FISCAL ZONING IN SUBURBAN COMMUNITIES* 84-90, 151-53 (1979); Edwin S. Mills & Wallace E. Oates, *The Theory of Local Public Services and Finance: Its Relevance to Urban Fiscal and Zoning Behavior*, in *FISCAL ZONING AND LAND USE CONTROLS* 1, 6-8 (Edwin S. Mills & Wallace E. Oates eds., 1975); Barbara Sherman Rolleston, *Determinants of Restrictive Suburban Zoning: An Empirical Analysis*, 21 J. URB. ECON. 1, 2, 18-19 (1987).

¹⁸¹ For a report on the Southeast Compact's efforts to take need into account in siting a low level radioactive waste disposal facility within its member states, see ENGLISH, *supra* note 133, at 120, 123, 127-28. Even if communities agree that need should be a consideration in siting a LULU, the Southeast Compact's experience shows how controversy can surround questions of how to calculate need. *Id.* at 122-24.

¹⁸² Austin & Schill, *supra* note 7, at 70.

services from local businesses.¹⁸³ Others pay taxes to the community.¹⁸⁴ Some, however, contribute very little to the local economy or tax base.¹⁸⁵ In comparing the burdens that are borne by different neighborhoods, it seems odd to ignore the benefits a LULU brings to its host community.¹⁸⁶ But those benefits may not accrue to the same people who bear the burdens. Local business owners may not live in the neighborhood, for example. Those burdened by a LULU are unlikely to feel that a distribution is fair just because benefits to their neighbors reduce the community's "net" burden.¹⁸⁷

A related question is whether the equal distribution of burden requires that the burdened neighborhood enjoy at least some of the benefit of the activity necessitating the LULU. Assume, for example, that a jurisdiction has chosen not to use nuclear power for any of its energy needs and that it does not enjoy any benefit from the generation of nuclear power elsewhere. Arguably, such a jurisdiction should not be considered when determining how to dispose of the spent nuclear fuel rods from nuclear power plants in other jurisdictions.¹⁸⁸

Similarly, should preferences or levels of risk aversion affect the distribution?¹⁸⁹ For example, if urban neighborhood A is more tolerant of air pollution than suburb B, an enclave for persons sensitive to pollution, how should the burden of an air-polluting LULU be calculated? If the burden is measured according to the subjective preferences of neighborhoods A and B, the distribution may favor already privileged neighborhoods.¹⁹⁰ Neighborhoods already beset by pollution may be hardened to its effects, while those that have enjoyed clean air will have developed a taste for even cleaner air.¹⁹¹

183 See *supra* note 5.

184 *Id.*

185 *Id.*

186 Indeed, some argue that fairness requires that those who receive the benefit of jobs and revenue bear the costs of the facility. See Gerrard, *supra* note 168, at 113.

187 See *supra* note 159-60 and accompanying text.

188 See, e.g., Kenneth Reich, *Nevada Legislators Say Plan to Bury Nuclear Waste in State is Unlawful*, L.A. TIMES, June 30, 1989, at 26 (reporting that many Nevadans object to the nuclear waste repository proposed for Yucca Mountain because Nevada produces no commercial nuclear waste). For a discussion of benefits-related equity, see Hornstein, *supra* note 149, at 598.

189 People tend to view the justice of a proposed distribution differently when distinctions between individuals are based on their tastes or beliefs rather than needs, even though the lines between tastes, beliefs and need are hard to draw. M.E. Yaari & M. Bar-Hillel, *On Dividing Justly*, 1 SOC. CHOICE WELFARE 1, 13-15 (1984).

190 See EDELSTEIN, *supra* note 4, at 186. The problem of preference is analogous to the problem of class differences in the utilization of such public services as libraries. For discussion of that problem, see LINEBERRY, *supra* note 9, at 120-22.

191 For analysis of the relationship between environmental concern and race, social class, and neighborhood characteristics, see Frederick H. Buttel & William L. Flinn, *Social Class and Mass Environmental Beliefs: A Reconsideration*, 10 ENV'T & BEHAV. 433 (1978);

Additionally, low income and minority neighborhoods face pressing problems that may leave residents less able to focus on the pollution or other risks a LULU poses.¹⁹²

Differences in preferences will not always favor the privileged, however. When preferences are based upon assessments of risk, people's preferences will depend upon such factors as the benefits that they derive from the risk, their culture, and their family situation.¹⁹³ Neighborhoods in which many residents work in the industries that generate the need for a LULU tend to be more accepting of those LULUs than other neighborhoods.¹⁹⁴ At least in those cases in which preferences do not penalize the poor or minorities, it is arguably unfair to ignore preferences that would result in a neighborhood receiving a LULU that it considers a benefit, or at worst a mild nuisance, when other neighborhoods receive LULUs that they consider a serious burden.

Finally, how should distributional goals be weighed against other siting considerations?¹⁹⁵ For example, if two sites meet some minimum threshold of safety, but the site that would result in a greater dispersion of LULUs is the riskier choice, how should the goals of safety and fairness be balanced? Or, to take a common case, assume that two sites are otherwise identical, but the site that

Susan Caris Cutter, *Community Concern for Pollution: Social and Environmental Influences*, 13 ENV'T & BEHAV. 105 (1981); G.D. Lowe et al., *Public Support for Environmental Protection: New Evidence from National Surveys*, 23 PAC. SOC. REV. 423 (1980); Paul Mohai, *Public Concern and Elite Involvement in Environmental Conservation Issues*, 66 SOC. SCI. Q. 820 (1985); D.E. Taylor, *Blacks and the Environment: Toward an Explanation of the Concern and Action Gap Between Blacks and Whites*, 21 ENV'T & BEHAV. 175 (1989).

¹⁹² See John E. Seley & Julian Wolpert, *Equity and Location*, in EQUITY ISSUES, *supra* note 141, at 69, 76. At least for social service facilities, the single best predictor of neighborhood opposition to a facility is the income of neighborhood residents. Dear, *supra* note 3, at 293. Apparently, the more affluent are much more sensitive to the burdens of LULUs than the less affluent, but it is difficult to imagine how a distribution scheme that responded to such "tastes" could be considered fair.

¹⁹³ See, e.g., MARY DOUGLAS & AARON WILDAVSKY, RISK AND CULTURE 14 (1982); William Hallman & Abraham Wandersman, *Perception of Risk and Toxic Hazards, in PSYCHOSOCIAL EFFECTS OF HAZARDOUS TOXIC WASTE DISPOSAL ON COMMUNITIES* 31 (Dennis L. Peck ed., 1989).

¹⁹⁴ See Gerrard, *supra* note 168, at 146-48.

¹⁹⁵ Among the considerations that might influence the siting choice are: the inherent physical characteristics of the site; the price of the land; the site's proximity to clients or customers; the availability of necessary infrastructure and support services; the number of people harmed or put at risk by the siting; the nature of the injuries, illnesses and deaths that the site may impose; the site's potential impact on the market value and income potential of property in the neighborhood; the site's potential effect on the community's economic structure; the costs the site will impose on those who the facility displaces; the site's potential impact on the community's social structure and social and cultural institutions; and the effect the site will have on the availability and quality of governmental services such as transportation, sewage, sanitation, and water supply. For a description of a variety of fairness concerns relating to these considerations, see Seley & Wolpert, *supra* note 192, at 70-80.

would result in greater dispersion of LULUs is twice the cost of the other. In such a case, at what point, if any, should the goal of cost minimization outweigh fairness issues?¹⁹⁶ For some types of LULUs, concentrating the facilities in one jurisdiction may be a more efficient use of land and resources than spreading them evenly throughout society.¹⁹⁷

These difficult problems of measurement and definition highlight an even more serious practical problem with the physical distribution of burden theory. In order to compare burdens, define affected neighborhoods, measure need, or address any of the other issues raised, society must be able to identify the winners and losers of a particular siting decision, as well as to calculate their gains or losses with some precision. Unfortunately, the techniques of cost/benefit analysis have not achieved the requisite level of sophistication.¹⁹⁸

Even if gains and losses could be calculated accurately, siting processes incorporating such complex and contestable calculations introduce significant opportunities for delay. For example, although the task of correlating a neighborhood's need with its fair share of the burden requires a single formula, the decision will involve many difficult judgments about how to measure and project need.¹⁹⁹ When that calculation must be performed for each LULU

¹⁹⁶ The cost versus equity tradeoff can be severe, both because land may be cheaper in poor and minority neighborhoods and because the government may own much of the land in those neighborhoods through tax foreclosures. Indeed, one study of the choice of sites and transportation networks for hazardous waste treatment facilities in the Albany, New York region revealed that the choice that minimized the cost of the siting increased the inequity of the siting by 110%. Inequity was measured by the siting's ability to minimize the maximum risk any neighborhood faced. George List & Pitu Mirchandani, *An Integrated Network/Planar Multiobjective Model for Routing and Siting for Hazardous Materials and Wastes*, 25 *TRANSP. SCI.* 146, 153-54 (1992).

¹⁹⁷ See, e.g., *THE NOT-IN-MY-BACKYARD SYNDROME*, *supra* note 164, at 173 (discussing the advantages of large scale, centralized hazardous waste facilities over a more diffuse siting of smaller facilities); Ronald Pushchak & Ian Burton, *Risk and Prior Compensation in Siting Low-Level Nuclear Waste Facilities: Dealing with the NIMBY Syndrome*, 23 *PLAN CANADA* 68, 71 (1983) (same).

¹⁹⁸ For discussions of the particular problems of measuring and comparing the costs of siting decisions, see *THE VALUATION OF SOCIAL COST* 8-31 (D.W. Pearce ed., 1978); Roger E. Kasperson & Barry L. Rubin, *Siting a Radioactive Waste Repository: What Role for Equity*, in *EQUITY ISSUES*, *supra* note 141, at 118, 120-22, 126-28; Robert W. Kates & Bonnie Braine, *Locus, Equity, and the West Valley Nuclear Wastes*, in *EQUITY ISSUES*, *supra* note 141, at 94; Douglas MacLean, *Social Values and the Distribution of Risk*, in *VALUES AT RISK*, *supra* note 120, at 75, 77-88; Allen V. Kneese et al., *Economic Issues in the Legacy Problem*, in *EQUITY ISSUES*, *supra* note 141, at 203, 203-05; Douglas MacLean, *Radioactive Wastes: A Problem of Morality Between Generations*, in *EQUITY ISSUES*, *supra* note 141, at 175-83; Seley & Wolpert, *supra* note 192, at 76-84. See also *infra* note 215 (discussing the special difficulties of cost assessment).

¹⁹⁹ For an illustration of the difficulty of calculating a community's need for low and moderate income housing, see *LISTOKIN*, *supra* note 162, at 41-51.

and every neighborhood, legal challenges could delay siting for years.²⁰⁰

While theoretically appealing in many ways, the equal physical distribution of burdens theory does not offer a practical solution to disproportionate siting. Although that does not necessarily disqualify the theory, it does illustrate the importance of determining exactly what fairness means to advocates of fair siting proposals. Only by confronting the demands of the equal physical distribution of burdens theory can society develop the tools and reach consensus on the value judgments that the theory requires.

b. *Compensation Schemes*

Compensation schemes are academics' favorite solutions to siting problems.²⁰¹ Such proposals are rejected by many environmental justice advocates, however, on the ground that it is immoral to "pay those who are less fortunate to accept risks that others can afford to escape."²⁰² In addition, compensation schemes pose a variety of practical problems.

i. *Moral Objections*

Although environmental justice advocates have not been specific about the grounds for their assertion that compensation schemes are immoral, several arguments could be offered. One argument against compensation schemes would focus on the immorality of commodifying certain matters involving life, health and safety, or human dignity. Just as society does not allow the poor to sell their kidneys, or to sell themselves into slavery, society should not

²⁰⁰ For a description of the delays created by an analogously elaborate screening process prescribed by the Nuclear Waste Policy Act of 1982, 42 U.S.C. § 10101-10336 (1988), see LUTHER J. CARTER, *NUCLEAR IMPERATIVES AND PUBLIC TRUST* 401-16 (1987).

²⁰¹ See, e.g., MICHAEL O'HARE ET AL., *FACILITY SITING AND PUBLIC OPPOSITION* 67-87 (1983); BACOW & MILKEY, *supra* note 5, at 279-305; Bernard Holznagel, *Negotiation and Mediation: The Newest Approach to Hazardous Waste Facility Siting*, 13 B.C. ENVTL. AFF. 329 (1986); Kasperson et. al., *supra* note 141, at 348-49; Paul R. Kleindorfer, *Compensation and Negotiation in the Siting of Hazardous-Waste Facilities*, 51 SCI. TOTAL ENV'T 197 (1986); Howard Kunreuther et al., *A Compensation Mechanism for Siting Noxious Facilities: Theory and Experimental Design*, 14 J. ENVTL ECON. & MGMT. 371 (1987); Mank, *supra* note 156, at 247; O'Hare, *supra* note 92, at 428-30; Arthur M. Sullivan, *Victim Compensation Revisited: Efficiency Versus Equity in the Siting of Noxious Facilities*, 41 J. PUB. ECON. 211 (1990).

²⁰² BULLARD, *supra* note 8, at 91. The current land market includes a form of compensated siting to the extent that the poor and minorities pay lower rent or housing prices because of the disamenities LULUs impose upon the neighborhood. The compensation is the difference between rent or land values before and after the siting. It is not clear that LULUs reduce property values, however. See *supra* notes 108-16 and accompanying text.

allow people to sell their health or their right to equal respect and concern.²⁰³

An additional argument could assert that compensation schemes take unfair advantage of the existing unequal distribution of wealth.²⁰⁴ If the poor have a right to proportional distribution of the burdens of LULUs those burdens should not be allocated through a market mechanism that allows existing inequalities of wealth to determine which community receives a LULU.²⁰⁵ To put the argument somewhat differently, the morality of compensation schemes depends in part upon whether the host community accepts the compensation voluntarily.²⁰⁶ When a community suffers severe disadvantage from existing inequalities of wealth, the voluntariness of its agreement to host the LULU is questionable.²⁰⁷

Finally, compensation schemes might be challenged as taking advantage of the inability of communities to assess accurately the risks for which compensation is demanded.²⁰⁸ Under general notions of compensatory justice, a neighborhood would be considered fully compensated if it believes itself no worse off from the compensated siting than from no siting.²⁰⁹ That applies, however, only if there is no significant reason to doubt the neighborhood's judgment.²¹⁰ One ground for concern is that information imperfections often will prevent the neighborhood from accurately assessing the losses it will suffer.²¹¹ In addition, a community may not consider all the costs to future generations of its agreement to host a LULU.²¹²

²⁰³ For general discussions of the inalienability theory, see Seth F. Kreimer, *Allocational Sanctions: The Problem of Negative Rights in a Positive State*, 132 U. PA. L. REV. 1293, 1389-90 (1984); Radin, *supra* note 171, at 1903-37; Susan Rose-Ackerman, *Inalienability and the Theory of Property Rights*, 85 COLUM. L. REV. 931 (1985). Society does allow people to work in high-risk jobs, and allows the commodification of services such as surrogacy that may compromise an individual's health or dignity. See KRISTEN S. SHRADER-FRECHETTE, *RISK ANALYSIS AND SCIENTIFIC METHOD*, 100-19 (1985) (discussing the ethics of allocating undesirable work through the market); Radin, *supra* note 171, at 1921-36 (discussing morality of surrogacy contracts). The anti-commodification argument against compensation schemes would have to distinguish those situations.

²⁰⁴ This argument obviously sweeps quite broadly—the labor market might be immoral under similar reasoning. See SHRADER-FRECHETTE, *supra* note 203, at 105, 108-11.

²⁰⁵ See *supra* notes 137-48 and accompanying text.

²⁰⁶ See THE NOT-IN-MY-BACKYARD SYNDROME, *supra* note 164, at 188; Kornhauser & Sager, *supra* note 143, at 508-09.

²⁰⁷ ENGLISH, *supra* note 133, at 136-37.

²⁰⁸ *Id.* at 137-38; Gertard, *supra* note 168, at 154.

²⁰⁹ ENGLISH, *supra* note 133, at 139.

²¹⁰ See NOZICK, *supra* note 152, at 58-59.

²¹¹ See THE NOT-IN-MY-BACKYARD SYNDROME, *supra* note 164, at 179, 185. For an analogous criticism of the theory of compensating wage differentials for hazardous work, see SHRADER-FRECHETTE, *supra* note 203, at 105-06.

²¹² See, e.g., ENGLISH, *supra* note 133, at 98; Sax, *supra* note 134, at 102-05. For discussions of how the rights of future generations might be considered in siting decisions,

A full evaluation of these arguments is beyond the scope of this article. Proponents of compensatory siting schemes must address the issue, however, if compensation is to be considered more than mere "bribery."

ii. *Pragmatic Objections*

Compensatory schemes face a variety of pragmatic hurdles. The most important hurdle is the difficulty of translating the risks of a LULU into monetary terms. As a first step, the proponents of the facility, regulators, and those affected by the facility must reach some consensus about the probability and expected consequences of the hazards posed by the facility.²¹³

Such a consensus is unlikely for at least three reasons. First, the regulatory systems for many noxious LULUs, such as hazardous and radioactive waste facilities, are premised on the notion that current technology can eliminate all but *de minimis* health risks.²¹⁴ Given that mindset, facility proponents and regulators are likely to believe that a proposed LULU that meets regulatory standards imposes no serious harms. Second, even if the proponents of the facility were to concede that the facility imposes a significant risk, the science of risk assessment cannot yet define the precise degree of risk posed by many LULUs.²¹⁵ Third, even if a scientific assessment of risk were possible, such assessments may vary significantly from the public's

see GUY KIRSCH, *SOLIDARITY BETWEEN GENERATIONS: INTERGENERATIONAL DISTRIBUTIONAL PROBLEMS IN ENVIRONMENTAL AND RESOURCE POLICY IN DISTRIBUTIONAL CONFLICTS IN ENVIRONMENTAL-RESOURCE POLICY* 381 (Allan Schnaiberg et al. eds., 1986); Daniel A. Farber & Paul A. Hemmersbaugh, *The Shadow of the Future: Discount Rates, Later Generations, and the Environment*, 46 *VAN. L. REV.* 267, 289-300 (1993); Roger E. Kasperson, *Social Issues in Radioactive Waste Management: The National Experience*, in *EQUITY ISSUES*, *supra* note 141, at 24, 50-52; Kneese et al., *supra* note 198, at 203, 210-24; MacLean, *supra* note 198, at 176-88.

²¹³ See ENGLISH, *supra* note 133, at 94.

²¹⁴ See Christopher J. Daggett et al., *Advancing Environmental Protection Through Risk Assessment*, 14 *COLUM. J. ENVT'L L.* 308, 320 (1989).

²¹⁵ John S. Applegate, *Worst Things First: Risk, Information, and Regulatory Structure in Toxic Substances Control*, 9 *YALE J. ON REG.* 277, 282-87 (1992); ENGLISH, *supra* note 133, at 97-99. Some of the difficulties of assessing risk stem from several information gaps. First, accurate information about the health effects of various hazardous substances is not always available. John S. Applegate, *The Perils of Unreasonable Risk: Information, Regulatory Policy, and Toxic Substances Control*, 91 *COLUM. L. REV.* 266, 277-94 (1991); Mary L. Lyndon, *Risk Assessment, Risk Communication and Legitimacy: An Introduction to the Symposium*, 14 *J. ENVT'L L.* 289, 289 (1989) [hereinafter Lyndon, *Risk*]; Mary L. Lyndon, *Information Economics and Chemical Toxicity: Designing Laws to Produce and Use Data*, 87 *MICH. L. REV.*, 1795, 1801-25 (1989). Second, information is sometimes lacking about the effectiveness of various technologies in controlling leaks or other releases. Charles E. Davis & James P. Lester, *Hazardous Waste Politics and the Policy Process*, in *DIMENSIONS OF HAZARDOUS WASTE POLITICS AND POLICY* 18 (Charles E. Davis & James P. Lester eds., 1985). Additional difficulties stem from disagreements among scientists about how to evaluate and extrapolate from data. Lyndon, *Risk*, *supra*, at 291.

perceptions of the risk involved.²¹⁶ Accordingly, all of the parties would have to agree upon the weight to be given to the public's perceptions of risk.

Even if all affected could agree on the harms and risks that a proposed LULU imposes, compensation schemes would require those harms and risks to be quantified in monetary terms. Techniques for measuring the value (or more aptly, disutility) of the risks and harms fall into two categories: indirect market approaches, such as hedonic property value studies, and expressed preference or contingent valuation techniques, such as surveys.²¹⁷ None of these techniques is capable of assessing the full costs of environmental threats.²¹⁸ This is especially true for LULUs involving hazardous wastes and other environmental pollutants that may pose risks for hundreds or thousands of years.²¹⁹

Negotiation-based assessments of costs also are inadequate, because a neighborhood's demands are likely to be different from the actual costs incurred by the neighborhood.²²⁰ A neighborhood might demand too little if it had imperfect information about a site's risks,²²¹ or if its poverty or relative inexperience in negotiation placed it in a disadvantageous bargaining position.²²² Conversely,

²¹⁶ DOUGLAS & WILDAVSKY, *supra* note 193, at 14; SHRADER-FRECHETTE, *supra* note 203, at 106; Baruch Fischhoff et al., *How Safe Is Safe Enough? A Psychometric Study of Attitudes Towards Technological Risks and Benefits*, 9 POL'Y SCI. 127 (1978); Clayton P. Gillette & James E. Krier, *Risk, Courts, and Agencies*, 138 U. PA. L. REV. 1027, 1070-85 (1990).

²¹⁷ For an overview of the methods used to value the costs of disamenities such as pollution from a LULU, see Cropper & Oates, *supra* note 39, at 703-21.

²¹⁸ For discussions of the problems with using indirect market methods to assess the cost of environmental degradation, see Cropper & Oates, *supra* note 39, at 703-09, 714-15, 718-20; Phil Graves, et al., *The Robustness of Hedonic Price Estimation: Urban Air Quality*, 64 LAND ECON. 220 (1988); Hageman, *supra* note 111, at 797-98; Michaels & Smith, *supra* note 109, at 234-36, 239; M.E. Paul, *Can Aircraft Noise Nuisance Be Measured in Money?*, 23 OXFORD ECON. PAPERS 297 (1971); A. Mitchell Polinsky & Steven Shavell, *The Air Pollution and Property Value Debate*, 57 REV. ECON. & STAT. 100 (1975); Zeiss, *supra* note 97, at 252-55. For discussions of the limited utility of contingent valuation studies, see THE NOT-IN-MY-BACKYARD SYNDROME, *supra* note 164, at 165-66; Cropper & Oates, *supra* note 39, at 710-11, 714-15, 717-19.

²¹⁹ See Cropper & Oates, *supra* note 39, at 725-27; MacLean, *supra* note 198, at 180-83.

²²⁰ For an interesting discussion of the use of contingent market mechanisms to force communities to reveal their actual expected costs, see David Goetze, *A Decentralized Mechanism for Siting Hazardous Waste Disposal Facilities*, 39 PUB. CHOICE 361 (1982).

²²¹ For discussions of the information problems involved in asking residents to value the risk of a site, see SHRADER-FRECHETTE, *supra* note 203, at 106; Fischhoff, *supra* note 216. For empirical studies of the accuracy of consumers' evaluation of the risk of hazardous waste sites, see Kohlhase, *supra* note 109, at 19 (finding market unable to distinguish the severity of the risk posed by different sites on the EPA's national priorities list).

²²² For analysis of the difficulties neighborhoods have in negotiating against developers, see Goetze, *supra* note 220, at 369. For examples of neighborhoods that have negotiated poor deals because they lacked bargaining skill or information, see Jeff Bai-

neighborhoods might demand too much as a matter of strategic bargaining, or might reject the notion of compensation altogether because either they do not believe that the risks are compensable or they oppose the project on principle.²²³

An alternative method of assessing injury to a host neighborhood would base compensation on the amount that a wealthy neighborhood would pay to avoid having the LULU.²²⁴ Unless the threat of siting is credible, however, residents of the wealthy neighborhood would strategically under-report their unwillingness to host the LULU.²²⁵

Compensation mechanisms also raise difficult questions about who should receive compensation: residents, property owners, the neighborhood itself, or some combination of the three. Residents would claim that they bear the most immediate risk and injury. Landlords, however, would assert that they absorb at least some, if not all, of the tenants' damages through lower rents. Moreover, if residents received compensation, the rights of future residents would have to be considered because they undoubtedly would bear part of the risks.²²⁶ For residents who benefit from the LULU (by obtaining employment at the facility, for example) difficult questions will arise about whether those benefits sufficiently offset any damages that those residents also incur.²²⁷ Additionally, compensation paid to the neighborhood itself would raise questions about how to define the affected neighborhood²²⁸ and whether to spend the money to mitigate the harms caused to individual residents.²²⁹

ley, *Some Big Waste Firms Pay Some Tiny Towns Little for Dump Sites*, WALL ST. J., Dec. 3, 1991, at A1.

²²³ See PORTNEY, *supra* note 3, at 37-41; Kunreuther et al., *supra* note 201, at 373; O'HARE ET AL., *supra* note 201, at 89-98.

²²⁴ The amount a community would pay to avoid a LULU assigned to it may be less than the amount it would accept as compensation for hosting the LULU not assigned to it, because of the offer/ask disparity: one generally wants more to compensate for a reduction in an entitlement than one would pay for an increase in the entitlement.

²²⁵ Kunreuther et al., *supra* note 201, at 373. The problem of avoiding strategic behavior by wealthy neighborhoods under this scheme is analogous to the problem of forcing taxpayers to reveal their true preferences for public goods.

²²⁶ See Kneese, et al., *supra* note 198, at 203-204, 213-14.

²²⁷ Compensation accordingly raises the problems of how to account for need and preferences that were discussed in connection with physical siting schemes. See *supra* notes 179-82, 189-92 and accompanying text.

²²⁸ See Mank, *supra* note 156, at 284 (describing how states that have adopted compensated siting programs have attempted to address disputes about which communities are entitled to participate in negotiations and receive part of the compensation).

²²⁹ The issue of how neighborhoods should use the compensation received is analogous to the question of how municipalities should spend exactions received from developers. Under *Nollan v. California Coastal Comm'n*, 483 U.S. 825 (1987), local governments must tailor exactions to remedy the harm the development imposes on the neighborhood. That requirement provides some protection to the individuals most affected by a development, but its primary purpose is to protect developers. Thus, it may

Furthermore, negotiated compensation would raise problems regarding the negotiation process. State or local officials or representatives of the neighborhood would probably conduct the negotiations.²³⁰ While it may be practical to use such officials, they or their predecessors may have been involved in the siting decisions that led to the current disproportionate allocation of burdens. Understandably, neighborhoods may be reluctant to turn the negotiations over to such people. Or local officials simply may not be representative of the public on the issues raised by the compensation proposal.²³¹ Similarly, individual residents may be wary of neighborhood representatives. One solution might be to submit a proposed compensation agreement to a referendum process. That process would raise difficult questions about who could vote, and what percentage of voters must ratify the agreement.²³² Alternatively, compensation could be determined through an administrative or judicial process, rather than through negotiation. But problems of accountability, expertise, conflicts of interest, and special interest influence are likely to vex any such process.²³³

Another practical problem with compensation schemes is their potential for inefficiency.²³⁴ Assume, for example, that a particular neighborhood is ideal for a toxic waste dump because of its superior geological characteristics. Further assume that the dump will cause \$100,000 of damage to the immediate neighbor,²³⁵ if that neighbor continues to behave as usual. No damage will result, however, if the neighbor takes simple precautionary measures costing \$1000. Unless limited to \$1000, compensation for damages would be socially inefficient because it would give the neighbor no incentive to be the

not be the most appropriate way to protect the neighbors' interests. Been, *supra* note 93, at 504-06.

²³⁰ In Massachusetts, for example, communities proposed to host hazardous waste facilities are required to form a negotiating committee consisting of the town's chief executive officer, the chairpersons of the town's board of health, conservation commission and planning board, the chief of the fire department, and residents of the town. Mass. Gen. Ann. ch. 21D, § 5 (1981 and Supp. 1993).

²³¹ See ENGLISH, *supra* note 133, at 76, 138.

²³² See ENGLISH, *supra* note 133, at 57, 74, 138-39; Gerrard, *supra* note 168, at 217-18.

²³³ See Gillette & Krier, *supra* note 216, at 1042-99.

²³⁴ The specific forms compensation takes may make compensation socially inefficient as well. Risk substitution as compensation, for example, may devote resources to clean-ups that are not the most socially desirable. Stephen T. Washburn & Robert H. Harris, *Necessary Evils*, 8 ISSUES IN SCI. & TECH. 86, 87 (1991) (reviewing PORTNEY, *supra* note 3).

²³⁵ Both fairness and efficiency concerns would raise questions about whether and how to account for individual tastes or unusual sensitivities to a LULU's activities in calculating damages. See *supra* notes 189-92 and accompanying text.

least cost avoider.²³⁶ Of course, the facility could attempt to negotiate some compensation short of the entire \$100,000 to encourage the neighbor to take the precaution, but that solution creates holdout problems and other transactions costs.

Despite these shortcomings, compensated siting schemes avoid several of the problems that plague physical distribution plans. Compensation schemes that directly make reparations to harmed individuals allow a fair distribution of burden among individuals, not just neighborhoods.²³⁷ They also avoid the need to determine whether a neighborhood has suitable land for a facility.²³⁸ Moreover, compensation schemes avoid the need to compare the burdens that LULUs impose on different communities.²³⁹ Compensation schemes spread the burden of LULUs without compromising the efficiency or safety of the siting.²⁴⁰

Compensated siting schemes share some of the other problems of physical distribution programs, however. They too rest on assessments of cost and risk that are inaccurate and incomplete at best.²⁴¹ They too require difficult choices about how to define the affected neighborhood²⁴² and how to account for neighborhood differences that might make equal compensation lead to unequal utility.²⁴³ Furthermore, they raise difficult questions about who should determine or negotiate the level of compensation and how to make those decision-makers accountable to the affected individuals.²⁴⁴ More importantly, for many people, no amount of money can sufficiently compensate for certain risks and losses.²⁴⁵ Where the losses are compensable, compensated siting raises the specter of the wealthy paying the poor and minorities to be their mercenaries.²⁴⁶ To gain acceptance as a solution to the problem of disproportionate siting, compensation schemes must overcome these serious problems.

²³⁶ See WILLIAM J. BAUMOL, *SUPERFAIRNESS* 96-104 (1986); R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 31-34 (1960); Cropper & Oates, *supra* note 39, at 680-81. For a discussion of the potential inefficiency of analogous compensatory schemes for governmental takings of private property, see Lawrence Blume & Daniel L. Rubinfeld, *Compensation for Takings: An Economic Analysis*, 72 CAL. L. REV. 569, 592-97 (1984); Kaplow, *supra* note 158, at 536-50.

²³⁷ See *supra* notes 158-60 and accompanying text.

²³⁸ See *supra* notes 161-64 and accompanying text.

²³⁹ See *supra* notes 166-71 and accompanying text.

²⁴⁰ See *supra* notes 195-97 and accompanying text.

²⁴¹ See *supra* notes 198-200 and accompanying text.

²⁴² See *supra* notes 172-75 and accompanying text.

²⁴³ See *supra* notes 176-94 and accompanying text.

²⁴⁴ See *supra* notes 230-33 and accompanying text.

²⁴⁵ See ENGLISH, *supra* note 133, at 82; Gerrard, *supra* note 168, at 153. See also *supra* note 203 and accompanying text.

²⁴⁶ See *supra* notes 204-07 and accompanying text.

2. *Fairness Requires Progressive Siting*

One could argue that a fair distribution of LULUs would require advantaged neighborhoods to bear more of the burden that LULUs impose than poor and minority neighborhoods. Such a distribution could involve either a physical siting scheme in which advantaged neighborhoods receive a disproportionately greater number of LULUs or a compensated siting scheme in which advantaged neighborhoods pay a greater share of the cost of LULUs.²⁴⁷ One rationale for such "progressive" siting would be compensatory justice:²⁴⁸ advantaged neighborhoods should bear more of the LULU burden in order to redress or remedy past discrimination against poor and minority neighborhoods.

Although the compensatory argument for progressive siting is backward-looking, at least four forward-looking justifications exist. First, progressive siting may be necessary to achieve equality of results, or equal impact of the burdens of LULUs.²⁴⁹ Because residents of poor and minority neighborhoods suffer from numerous disadvantages, such as poor health and barriers to mobility,²⁵⁰ a LULU in a disadvantaged neighborhood will have a greater impact than one in a more advantaged community. Thus, to achieve the same level of impact, advantaged communities must bear a greater share of the burden of LULUs. The environmental justice move-

²⁴⁷ A progressive scheme requires the same measurements and comparisons that pose problems for the equal division theory of fairness. See *supra* notes 165-200 and accompanying text.

²⁴⁸ While the environmental justice movement calls for future siting decisions to account for the existing distribution of LULUs, it usually does not frame that call as one for compensatory justice. Indeed, some environmental justice advocates appear to have eschewed such an approach. See, e.g., Ferris, *supra* note 138, at 28 ("The keystone of this quest for justice is equal protection, not equal pollution."); Terry Ow-Wing, *Have Minorities Benefitted . . . ? A Forum*, 18 EPA J. 32, 35 (1992) ("Because the air we breathe is shared equally by all, we must work together to cleanse our Earth for everyone and not waste energy on past inequities."). But see Dorceta Taylor, *The Environmental Justice Movement*, 18 EPA J. 23, 24 (1992) ("The movement seeks remedies for these past injustices and seeks to promote fairness in future environmental actions."). Advocates use notions of compensatory justice and redress when calling for sites to be closed or cleaned up. See generally CRJ, *supra* note 46, at 23 (because of the "inordinate concentration of uncontrolled toxic waste sites in Black and Hispanic communities," the cleanup of those sites "should be given the highest possible priority"); Ferris, *supra*, at 29 (EPA's compliance and enforcement activities "should target facilities and sites that foster the adverse conditions occurring in minority communities").

²⁴⁹ One could also argue that a minority neighborhood's "need" to avoid the harmful effects of LULUs is greater than other neighborhoods. A need-based distribution would therefore require placing more LULUs in non-minority neighborhoods. For discussion of a need-based system of distribution, see DEUTSCH, *supra* note 165, at 42-43.

²⁵⁰ For discussions of the health status of African Americans, see sources cited *supra* note 176. See also John O. Calmore, *To Make Wrong Right: The Necessary and Proper Aspirations of Fair Housing in National Urban League, The State of Black America 1989*, at 77, 88-100 (1989) (discussing the mobility barriers facing minorities).

ment's focus on tailoring risk assessments and regulatory activities to account for the special health risks faced by low income or minority communities reflects this argument.²⁵¹

Second, if the marginal utility of environmental quality declines as neighborhoods receive more environmental amenities, LULUs would impose less disutility upon advantaged neighborhoods than upon poor and minority neighborhoods.²⁵² Thus, progressive siting would induce equal sacrifice from all neighborhoods and impose the least damage to society as a whole.²⁵³ Third, progressive siting could maximize total utility if putting more LULUs in advantaged neighborhoods encouraged society to reduce²⁵⁴ the number of LULUs it requires.²⁵⁵

Fourth, John Rawls' difference principle²⁵⁶ might justify progressive siting. Rawls' theory of justice does not directly apply to siting controversies because it addresses the design of fair institutional structures, not the fairness of individual distributional choices.²⁵⁷ Nevertheless, on a micro-level the difference principle requires the siting process to yield the greatest benefit, or the least burden, to the least advantaged.²⁵⁸ A progressive siting scheme is justified, in other words, if such siting would be more likely to im-

²⁵¹ See, e.g., Bunyan Bryant & Paul Mohai, *The Michigan Conference: A Turning Point*, 18 EPA J. 9, 10 (1992) (Federal agencies should "ensur[e] that a racial and socioeconomic dimension is overlaid on present and future geographic studies of environmental risk."); Ferris, *supra* note 138, at 29 (arguing that current risk assessment practices ignore the increased exposure and special vulnerabilities of minorities); see also WORKGROUP REPORT I, *supra* note 141, at 8-9 (environmental equity requires that enforcement actions and compliance monitoring in minority and low-income communities reflect the degree of risk in those communities).

²⁵² See Gabriel & Wolch, *supra* note 62, at 346-48 (suggesting that social service facilities have a greater negative effect on nonwhite neighborhoods than on white neighborhoods).

²⁵³ The "equal sacrifice" theory for progressive siting is analogous to a justification for the progressive income tax: because of the declining marginal utility of income, equal sacrifice in the payment of taxes requires the wealthy to pay more. Similarly, the "least damage to society as a whole" argument is reminiscent of the "minimum sacrifice" justification for progressive taxation: because of the declining marginal utility of money, progressive taxation minimizes the sacrifice required of all. For the classic exposition and critique of these arguments for progressive taxation, see Walter J. Blum & Harry Kalven, Jr., *The Uneasy Case for Progressive Taxation*, 19 U. CHI. L. REV. 417, 455-79 (1952).

²⁵⁴ This argument assumes that the reduction in the number of LULUs resulting from progressive siting is efficient.

²⁵⁵ This argument is the converse of the proposition that wealth inequalities provide incentives for productivity, innovation, and risk-taking, which then lead to a bigger pie for society as a whole. For a discussion of that argument, see RESCHER, *supra* note 136, at 102-04.

²⁵⁶ RAWLS, *supra* note 133, at 75-83.

²⁵⁷ *Id.* at 54-60, 64, 108-17. See also THOMAS NAGEL, *MORTAL QUESTIONS* 109 (1979).

²⁵⁸ See RAWLS, *supra* note 133, at 60-62, 75-80. The difference principle derives from the maximin rule for choice under uncertainty. *Id.* at 152-55.

prove the condition of the poorest members of society than one that either distributed the burden of LULUs equally or imposed the burden disproportionately upon the poor and minorities.²⁵⁹

All four of these justifications for progressive siting are problematic. The compensatory justice rationale for progressive siting requires evidence that sites were placed in particular neighborhoods because of the poverty or race of their residents. As discussed in Part II, however, most of the research fails to examine the socio-economic characteristics of host communities at the time the LULUs were sited, and therefore proves nothing about the intent or initial impact of the siting decisions.²⁶⁰

If future research proves that siting decisions were based on discriminatory intent or had disparate initial impact, some form of remedy for the past discrimination would be warranted.²⁶¹ The question would be whether a progressive siting scheme is an appropriate remedy. Many of the moral arguments for and against "affirmative action" in the context of employment or education would apply.²⁶² Additionally, a remedial siting program might perpetuate the legacy of the previous unfair siting by making it more difficult to site future LULUs, and thereby creating additional pressure for existing LULUs to continue or even expand their operations.

The equality-of-results argument is analogous to debates about educational financing, and many of the critiques of the argument in that context apply here as well.²⁶³ Additionally, this line of argument avoids the central question of whether society should use its resources to address directly differences among communities in health, mobility, and other quality of life measures, rather than imposing the indirect remedy of a progressive siting scheme.

The argument that progressive siting is appropriate because of the declining marginal utility of environmental amenities lacks a fac-

²⁵⁹ For an illustrative application of these principles to siting, see R. L. Hodgart, *Optimizing Access to Public Services: A Review of Problems, Models and Methods of Locating Central Facilities*, 2 *PROGRESS IN HUMAN GEOGRAPHY* 17, 27 (1978); List & Mirchandani, *supra* note 196.

²⁶⁰ See *supra* notes 81-91 and accompanying text.

²⁶¹ The right to be free of discrimination based on wealth now has no constitutional basis. *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1 (1973). This discussion therefore pertains only to progressive siting schemes offered to remedy past racial discrimination.

²⁶² See, e.g., *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989); *Fullilove v. Klutznick*, 448 U.S. 448 (1980); *Regents of the Univ. of Cal. v. Bakke*, 438 U.S. 265 (1978); *EQUALITY AND PREFERENTIAL TREATMENT* (Marshall Cohen et al. eds., 1977); *KENT GREENAWALT, DISCRIMINATION AND REVERSE DISCRIMINATION* (1983); *REVERSE DISCRIMINATION* (Barty R. Gross ed., 1977); *MICHAEL ROSENFELD, AFFIRMATIVE ACTION AND JUSTICE* (1991); Ellen Frankel Paul, *Set-Asides, Reparations, and Compensatory Justice*, in *COMPENSATORY JUSTICE* 97 (John W. Chapman ed., 1991).

²⁶³ See *LINEBERRY, supra* note 9, at 31-33; Coleman, *supra* note 178.

tual basis. Indeed, the opposite relationship may exist. After a neighborhood becomes host to one or more LULUs, the marginal impact of an additional LULU may be far less than the impact that the first LULU imposes upon any neighborhood.²⁶⁴ Thus, further research is necessary to clarify the nature of the utility function.

Similarly, the incentive effects of imposing additional LULUs upon wealthier neighborhoods require further study.²⁶⁵ A progressive siting plan based on the incentives argument also would require further thinking about how to prevent the wealthy from escaping the siting of a LULU. Unless Congress prohibited the shipment of the nation's waste to other countries, for example, the problem of unfair siting would simply shift from neighborhoods in the United States to poor nations.²⁶⁶ Some escape routes cannot be closed easily, however. Within the United States, the wealthy could move to those states or towns that do not impose progressive physical siting schemes, or that impose the least progressive taxes.²⁶⁷ Even if Congress imposed a national progressive siting program, the wealthy could still escape progressive physical siting schemes by moving as far away from the LULUs as possible.²⁶⁸ Indeed, areas physically unsuitable for various LULUs might become enclaves for the wealthy.²⁶⁹

²⁶⁴ Seley & Wolpert, *supra* note 192, at 85.

²⁶⁵ Rather than providing an incentive for the wealthy to find better answers to problems such as waste disposal, progressive siting schemes might provide disincentives for productivity. Just as a military draft based on high income levels would seriously erode incentives for productivity (or for honest disclosure of income), a siting plan that tied income to the distribution of LULUs could reduce productivity.

²⁶⁶ For discussions of the practice of dumping wastes in poor countries, see, e.g., ELLI LOUKA, *THE TRANSNATIONAL MANAGEMENT OF HAZARDOUS AND RADIOACTIVE WASTES* 1-6 (Orville H. Schell, Jr. Center for International Human Rights at Yale Law School Occasional Paper No. 1, 1992); *THE INTERNATIONAL TRADE IN WASTES: A GREEN-PEACE INVENTORY* (Jim Vallette ed., 1990); Denis Smith & Andrew Blowers, *Here Today, There Tomorrow: The Politics of Hazardous Waste Transport and Disposal*, in *WASTE LOCATION: SPATIAL ASPECTS OF WASTE MANAGEMENT, HAZARDS AND DISPOSAL* 208, 212-13, 215-24 (Michael Clark et al. eds., 1992); Cole, *supra* note 7, at 645 & n.89; Teresa A. Wallbaum, Note, *America's Lethal Export: The Growing Trade in Hazardous Waste*, 1991 U. ILL. L. REV. 889, 891-95.

²⁶⁷ For discussions of how redistributive tax policies may cause the wealthy to flee a jurisdiction, see DAVID N. KING, *FISCAL TIERS: THE ECONOMICS OF MULTI-LEVEL GOVERNMENT* 32-37 (1984); GARY J. MILLER, *CITIES BY CONTRACT: THE POLITICS OF MUNICIPAL INCORPORATION* 163-89, 196-202 (1981); EDWIN S. MILLS & BRUCE W. HAMILTON, *URBAN ECONOMICS* 313-22 (4th ed. 1989); David F. Bradford & Wallace E. Oates, *Suburban Exploitation of Central Cities and Governmental Structure*, in *REDISTRIBUTION THROUGH PUBLIC CHOICE* 43, 51-60, 65-71, 84-86 (Harold M. Hochman & George E. Peterson eds., 1974).

²⁶⁸ Of course, fleeing a jurisdiction or moving away from a LULU imposes costs; therefore, the wealthy may have an incentive to develop alternative solutions to siting problems that are cheaper than moving.

²⁶⁹ Some LULUs, such as group homes, do not require particular geological or geographic characteristics, so the wealthy might be unable to escape an obligation to host

In addition to their questionable factual bases, both the marginal utility and incentive arguments are basically utilitarian arguments, and must respond to the well-rehearsed criticisms of utilitarianism.²⁷⁰ Fundamental difficulties with Rawls' difference principle also have been stated eloquently elsewhere.²⁷¹ In the specific context of progressive siting, the principle is especially problematic. At first glance, progressive siting seems more advantageous to poor and minority neighborhoods than other siting schemes. Under a progressive scheme, those neighborhoods would continue to enjoy the benefits of LULUs, but bear less of the burdens.²⁷² That analysis depends, however, upon whether a progressive scheme would site the same number of necessary LULUs as other siting schemes.²⁷³ If a progressive or equal distribution scheme results in fewer sitings of necessary LULUs,²⁷⁴ the poor and

those LULUs. But many of the least desirable LULUs, such as waste dumps, could be avoided by buying land deemed geographically unsuitable for such uses.

²⁷⁰ For general critiques of utilitarianism, see, e.g., RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* 234-37, 269, 274-77 (1977) [hereinafter DWORKIN, TRS]; NOZICK, *supra* note 152, at 32-33; RAWLS, *supra* note 133, at 22-33, 90-92, 180-83, 187-88; J.J.C. SMART & BERNARD WILLIAMS, *UTILITARIANISM: FOR AND AGAINST* 77-150 (1973). For discussions of utilitarianism in the context of environmental decisions, see ENGLISH, *supra* note 133, at 150-51; PETER S. WENZ, *ENVIRONMENTAL JUSTICE* 181-209 (1988).

²⁷¹ For general critiques of Rawls' theory, see, e.g., *READING RAWLS: CRITICAL STUDIES ON RAWLS' A THEORY OF JUSTICE* (Norman Daniels ed., 1975); *Symposium: A Theory of Justice*, 69 AM. POL. SCI. REV. 588-674 (1975). Writings about Rawls, which number in the hundreds, are usefully catalogued in J.H. WELLBANK ET AL., *JOHN RAWLS AND HIS CRITICS: AN ANNOTATED BIBLIOGRAPHY* (1982). For discussion of Rawls' theory in the context of environmental decisions, see ENGLISH, *supra* note 133, at 150-51; WENZ, *supra* note 270, at 245-53.

²⁷² This assumes that all neighborhoods define well-being in the same way, which may not be accurate. Kleindorfer, *supra* note 201, at 203. It also assumes that the residents of poor or minority neighborhoods belong to the "worst off" group. That assumption is probably wrong. Those adversely affected by the siting of LULUs at least have homes; the worst off are likely to be homeless. If an equal distribution scheme makes it more difficult to site those social service LULUs that benefit the poorest, such a scheme may disadvantage the worst off. See generally Ronald Dworkin, *What is Equality? Part 2: Equality of Resources*, 10 PHIL. & PUB. AFF. 283, 339-42 (1981) (discussing the difference principle's insensitivity to such problems).

²⁷³ Rawls' theory of justice has been criticized as too indefinite to yield useful insights about specific social programs precisely because it requires empirical evidence about the disincentive effects of egalitarian policies. Richard A. Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103, 118-19 (1979).

²⁷⁴ The number of LULUs sited could decrease under a progressive or equal distribution scheme for several reasons. Wealthier voters could refuse to fund the agencies that site social services LULUs or demand that the services be restructured to decrease the need for sites within the jurisdiction, by favoring institutionalization over small group homes for the mentally retarded, for example. This scenario seems to have occurred in New York City after the city adopted "fair share criteria" to try to distribute LULUs more fairly. Mayor Dinkins proposed to replace large homeless shelters with 24 smaller service-intensive facilities spread throughout the city in accord with the criteria. The outcry of the targeted neighborhoods was extremely negative. Joseph B. Rose, *A Critical Assessment of New York City's Fair Share Criteria*, 59 AM. PLAN. ASS'N J. 97, 98-99

minorities in fact may be worse off than they would be under a disproportionate siting scheme.²⁷⁵ For example, social service LULUs serve large numbers of the poor, and fewer sitings of such services may disadvantage those clients. Additionally, if sitings become more difficult, LULUs presently sited in poor and minority neighborhoods might have to expand their operations, further disadvantaging those neighborhoods. Moreover, if progressive siting encourages wealthier residents to move from the jurisdiction, then a jurisdiction's tax base and political influence may decline, again to the disadvantage of the poor and minorities.²⁷⁶

In sum, arguments for progressive siting face philosophical objections that scholars have raised in other contexts. Applied specifically to siting questions, the compensatory justice, marginal utility and incentive arguments all rest upon unproven factual premises. Moreover, neither the compensatory justice nor the difference principle argument refutes the possibility that progressive siting might harm the interests of the poor and minorities by making it more difficult to site necessary LULUs.

3. *Fairness Requires an Equal Initial Split and Competitive Bidding*

A much different conception of fairness can be drawn from Ronald Dworkin's work on the meaning of equality.²⁷⁷ In exploring the ideal of equality of resources, Dworkin asks how resources should be distributed among shipwreck survivors washed up on a desert island.²⁷⁸ Dworkin's thought experiment is far removed from the problems of siting LULUs, but his analysis helps illuminate the notions of fairness inherent in several recent proposals that LULUs be "auctioned" among communities.²⁷⁹ Dworkin posits that equal-

(1993). The Mayor quickly backed down by appointing a panel to assess the city's homeless policy. That panel recommended that the city stop providing homeless shelters altogether, and instead leave the task to private non-profit agencies, in part because those agencies would have more freedom than the city in siting their services. COMMISSION ON THE HOMELESS, *THE WAY HOME: A NEW DIRECTION IN SOCIAL POLICY* 106-09 (1992).

²⁷⁵ A progressive siting scheme might lead residents of the targeted suburbs and other communities to move back to the city. That might make housing in the suburbs more affordable and available to minorities and the lower middle class. Alternatively, the housing might not "trickle down," and the urban gentrification would then further disadvantage the poor and minorities.

²⁷⁶ See sources cited *supra* note 267.

²⁷⁷ Ronald Dworkin, *What is Equality? Part 1: Equality of Welfare*, 10 PHIL. & PUB. AFF. 185 (1981) [hereinafter *Equality of Welfare*]; Ronald Dworkin, *What is Equality? Part 2: Equality of Resources*, 10 PHIL. & PUB. AFF. 283 (1981) [hereinafter *Equality of Resources*]; Ronald Dworkin, *What is Equality? Part 3: The Place of Liberty*, 73 IOWA L. REV. 1 (1987); Ronald Dworkin, *What is Equality? Part 4: Political Equality*, 22 U.S.F. L. REV. 1 (1987).

²⁷⁸ *Equality of Resources*, *supra* note 277, at 285-90.

²⁷⁹ See Herbert Inhaber, *A Market-Based Solution to the Problem of Nuclear and Toxic Waste Disposal*, 41 J. AIR & WASTE MGMT. ASS'N 808 (1991); O'Hare, *supra* note 92, at 438-39.

ity of resources would result if each shipwreck survivor were assigned initially an equal share of clamshells that she could use to bid competitively for resources.²⁸⁰ He argues that a distribution is fair if no individual prefers the distribution that some other individual obtains. Competitive bidding among those with initially equal bidding currency will produce such a distribution.²⁸¹

Applied to the siting context, Dworkin's scheme requires that communities be given an equal number of bargaining chips with which to bid against LULUs. Society would decide which LULUs it would need for some period of time and put them on the auction block. Each community would then receive chips to buy its way out of particular LULUs—essentially a currency of vetos.²⁸²

For example, suppose there are five communities of equal population and land area and there are fifteen LULUs, ranging from a home for juvenile delinquents to a low-level radioactive waste dump. Each community would be allocated ten veto chips.²⁸³ The auctioneer would begin by announcing that a particular LULU would be randomly distributed among the communities, but the highest bidder could remove itself from the eligible pool. If community A bids two chips to avoid it, B bids three, and C bids four, C "wins" the veto, paying four of its chips to disqualify itself from the selection process. Communities A, B, D, and E are still eligible, unless one wants to bid again. Suppose that A and E each again bid two, and B bids three; B is then eliminated, and so on, until none of the eligible communities wishes to veto the LULU. It is then randomly distributed among them. The process repeats for the next LULU. Once a community spends its ten veto chips, it is eligible for all remaining LULUs. The auction ends once all LULUs have been distributed.

²⁸⁰ *Equality of Resources*, *supra* note 277, at 283-90. For similar conceptions of fairness, see BAUMOL, *supra* note 236, at 15-50; Duncan Foley, *Resource Allocation and the Public Sector*, 7 YALE ECON. ESSAYS 45, 73 (1967); Hal Varian, *Distributive Justice, Welfare Economics, and the Theory of Fairness*, 4 PHIL. & PUB. AFF. 223, 240-47 (1975); Yaari & Bar-Hillel, *supra* note 189, at 4.

²⁸¹ *Equality of Resources*, *supra* note 277, at 286-87.

²⁸² Rather than distributing equal shares of currency with which to bid against LULUs, a siting mechanism could allow communities to bargain over the LULUs they would have to take, with the threat of equal assignment if no agreement results. Assume, for example, that society must provide shelter for 150 homeless individuals and detoxification services for 150 drug addicts, and that society generally values the burden of each service equally. Under this scheme, communities A and B would bargain over how to allocate the burden, both knowing that if they do not reach an agreement, they each must host 75 beds for the homeless and 75 for drug addicts. If community A believes that the homeless shelter would impose less of a burden on its residents, it might offer to host the homeless shelter, in exchange for community B hosting the drug treatment center.

²⁸³ Each community's share of currency could be based upon the community's population, land area, or some other measure. See *supra* text accompanying notes 172-75.

If communities change their minds about the LULUs they prefer, they may trade their LULUs with other willing communities. Suppose that through the auction community A receives a large oil refinery and a prison, while community B receives a low-level radioactive waste storage facility. If community B believes that its geographical characteristics and the qualifications of its work force would enable it to host the oil refinery and prison more efficiently than the radioactive waste facility, community B could seek to trade with community A.

Under this conception of fairness, an auction for LULUs involves an equitable distribution of veto power. Proposals to hold reverse auctions, in which the siting agency or developer offers to pay a specific sum of money to the first community that agrees to accept the LULU, then increases the amount until some community steps forward with an acceptable site,²⁸⁴ are not fair under this conception because they take advantage of any inequalities of wealth that existed prior to the auction.²⁸⁵

This Dworkinian conception of fairness relies upon the bidding process to reveal communities' individual preferences regarding LULUs. In contrast, proposals like Professor Popper's would assign points to different types of LULUs, allocate the total points among communities, then allow trading among the communities to determine the various packages of LULUs that would satisfy the communities' responsibilities.²⁸⁶ Such proposals avoid the costs of an auction. By relying on a point system to establish the relative desirability of different kinds of LULUs, however, these proposals raise all of the difficulties of comparing burdens that plague the physical distribution schemes outlined previously.²⁸⁷

The veto by auction theory obviates the need to compare LULUs, but nevertheless suffers from some problems of definition and measurement, because it requires society to allocate the LULU veto power equitably. That allocation involves definitions of neighborhood.²⁸⁸ It also requires decisions about whether a neighborhood that is more responsible for generating a need for the LULU should receive less veto power than other neighborhoods.²⁸⁹ Similarly, it requires decisions about whether communities without land suitable

²⁸⁴ See Inhaber, *supra* note 279, at 812.

²⁸⁵ Similarly, Michael O'Hare's early proposal to have communities bid the minimum amount they would accept as compensation for a LULU would favor richer communities, whose advantages could enable them to demand more than poorer communities and avoid LULUs altogether. O'Hare, *supra* note 92, at 438-39.

²⁸⁶ Popper's proposal is described in Marshall, *supra* note 6, at 316-17.

²⁸⁷ See *supra* notes 166-71 and accompanying text.

²⁸⁸ See *supra* notes 172-75 and accompanying text.

²⁸⁹ See *supra* notes 179-82 and accompanying text.

for a particular LULU should have to use their veto chips to be excluded from eligibility for the LULU.²⁹⁰

The auction model also requires projections about the number and types of LULUs needed in the future. Such projections are difficult to make and prone to error.²⁹¹ That potential for error may undermine the fairness of the auction. Unless auction prices factor in the potential for error, those neighborhoods that "buy" LULUs that never materialize will receive a windfall compared to those that "buy" LULUs that do materialize. Indeed, communities will probably lobby the relevant authorities to cancel the projects they received in the auction. Additionally, the fairness of a LULU auction would depend upon whether communities had equal knowledge about the risks and harms the LULUs would impose, and had equal bargaining power in the post-auction trading. Even if one could solve those problems, the auction mechanism might remain impractical because of the time, information, and expense needed to conduct the auction.²⁹²

The idea of a LULU auction and market is appealing because it recognizes that communities, like people, have differing tastes, abilities, and characteristics, and that those differences may make a LULU that is repugnant to one community much less bothersome to another. To be operational, however, the idea requires enormous advances in society's ability to predict needs, to both measure and communicate about risk, and to design a cost-effective auctioning mechanism.

B. Fairness As Cost-Internalization

Many environmental justice advocates argue that fairness requires those who benefit from LULUs to bear the cost of the LULUs.²⁹³ Forcing the internalization of costs leads to greater fairness in two ways. First, it is fairer to hold individuals responsible for their actions than to let costs fall on innocent bystanders. Second, forcing the internalization of costs results in greater efficiency, and greater efficiency is likely to mean fewer LULUs. Purchasers of products that generate waste will reduce consumption once the

²⁹⁰ See *supra* notes 161-64 and accompanying text.

²⁹¹ For a discussion of the difficulty of projecting the need for low and moderate income housing, see LISTOKIN, *supra* note 162, at 48-51.

²⁹² Stephen K. Swallow et al., *Siting Noxious Facilities: An Approach that Integrates Technical, Economic, and Political Considerations*, 68 LAND ECON. 283, 285 (1992).

²⁹³ See, e.g., John H. Adams, *The Mainstream Environmental Movement*, 18 EPA J. 25 (1992) (disproportionate impact results because costs of consumption and pollution are borne by minorities and the poor rather than internalized by polluters and society as a whole).

prices of the products reflect the true cost of waste facilities.²⁹⁴ In turn, producers will develop more efficient means of production, given the cost of disposing the waste generated.²⁹⁵ The number of LULUs will thereby decrease to the socially optimal level—the level at which the marginal utility of the product necessitating the LULU equals its costs.²⁹⁶

Such a “user pays” approach is not always possible because it requires a precise matching of benefit and burden. Additionally, some LULUs, such as homeless shelters, result more directly from political decisions about how to allocate society’s resources than from personal consumption choices. In those circumstances, fairness as cost-internalization requires that the burdens be spread throughout society, so that all are forced to confront the costs of society’s choices²⁹⁷ and to make better decisions.²⁹⁸ One member of a commission that struggled to ensure fair siting in New York City, for example, expressed the hope that siting homeless shelters in areas of the city that had none might make residents of those

²⁹⁴ Some environmentalists hope that forcing consumers to bear the full cost of products will eliminate some LULUs. As one advocate stated: “People think we’re NIMBYs (Not in My Backyard). But we’re not. We’re NOPEs (Not on Planet Earth).” William K. Reilly, *The Green Thumb of Capitalism*, 54 POL’Y REV. 16 (1990).

²⁹⁵ See, e.g., Luke W. Cole, *Remedies for Environmental Racism: A View from the Field*, 90 MICH. L. REV. 1991, 1996 (1992) (opposition to proposed sitings has “forced industry to move from a pollution *control* to a pollution *prevention* mode of operation.”); Nicholas Freudenberg & Carol Steinsapir, *Not in Our Backyards: The Grassroots Environmental Movement*, in AMERICAN ENVIRONMENTALISM 27, 34 (Riley E. Dunlap & Angela G. Mertig eds., 1992) (opposition to LULUs has created new political and economic pressures for pollution prevention); Marshall, *supra* note 6, at 318 (quoting Professor Albert Matheny as saying that opposition to proposed hazardous waste sites will pressure industry to “cure the cause instead of the symptoms”). Robert W. Lake suggests another way of looking at the effects of spreading the burden of LULUs more broadly: siting LULUs “constitutes a locational solution to an industrial production problem ([such as] hazardous waste generation) . . . that concentrates costs on host communities, as compared to the alternative strategy of restructuring production so as to produce less waste, which concentrates costs on capital.” Lake, *supra* note 1, at 5.

²⁹⁶ For discussion of the efficiency of forcing the internalization of the costs of LULUs, see Bingham & Miller, *supra* note 5, at 479.

²⁹⁷ Robert W. Lake suggests that opposition to facilities such as homeless shelters serves a useful function for the government: it is “politically easier to castigate community opposition” than to “re-examine a political economy that perpetuates poverty so that we have to create places for poor people to live.” Lake, *supra* note 1, at 90. Under Lake’s formulation, forcing all communities to bear their share of the burden of LULUs would deprive the government of the opportunity to blame NIMBYism for the failure of its policies. Lake asserts this would increase the pressure on the government to develop structural solutions to homelessness and poverty. *Id.* at 91.

²⁹⁸ The argument is similar to one made about the advantages of a draft over a volunteer military: drafting from the middle and upper classes gives those classes a significant stake in government decisions about whether and how a war is waged, and thus ensures that they will seek to constrain the use of military force. See FALLOWS, *supra* note 146, at 136-37; Leon Friedman, *Conscription and the Constitution: The Original Understanding*, 67 MICH. L. REV. 1493, 1494 (1969); Bradley, *supra* note 146, at 133-34.

communities more willing to support social programs addressing the underlying causes of homelessness.²⁹⁹

The cost-internalization conception of fairness requires that those who consume a product or make an allocation decision bear the product's or decision's full costs.³⁰⁰ To attain that goal, the manufacturer whose product generates the need for a LULU could compensate the host neighborhood for the full damages that the LULU inflicts, and then pass that cost forward to the consumers of the product.³⁰¹ However, those who advocate cost-internalization as a means of combatting disproportionate siting generally oppose compensatory schemes.³⁰² Instead, they either support programs to physically distribute LULUs more evenly across all neighborhoods or favor blocking all LULUs to encourage pollution prevention that would make LULUs unnecessary.³⁰³

A physical distribution scheme would be less effective than compensation, however, at forcing the full internalization of the product's costs.³⁰⁴ It would be nonsensical to distribute one LULU to each consumer; therefore, a physical distribution of sites would always allow most consumers to avoid the full costs of their consumption decisions.³⁰⁵ Additionally, a physical distribution scheme would usually be both overinclusive and underinclusive: some residents of the host neighborhood might never consume the product

299 F.A.O. Schwarz, Jr., Address at the Association of the Bar of the City of New York's Panel on New York City's Fair Share Criteria, April 15, 1992. Mr. Schwartz served on the Charter Revision Commission that drafted the provisions of the current New York City charter requiring city facilities to be sited in accord with "fair share criteria." For further description of the charter and the fair share criteria, see *infra* notes 412-26 and accompanying text.

300 The "cost-internalization" conception of fairness requires only that the producers and consumers of the product take into account all the costs of its production and disposal. A further theory is required to explain why those costs, or damages, should be paid to the victims of the siting. Generally, damages are paid to the victims of a harm, rather than to the general treasury. This is done to prevent victims from acting inefficiently, by taking too many precautions against the damage, for example. Here, that rationale would certainly justify payment of damages directly to the victims of a siting.

301 The payment to the affected community would serve to internalize costs in the same way that nuisance damages or land use exactions force consumers to bear the full cost of a land use. See Been, *supra* note 93, at 482-83 & n.53.

302 See *supra* note 202 and accompanying text.

303 See, e.g., Cole, *supra* note 7, at 644-45.

304 If compensation is considered immoral, it would not matter whether it effectively forces cost internalization. See *supra* note 202-12 and accompanying text.

305 Similarly, a lottery system in which all consumers of a product stood an equal chance of being selected to live near the waste facility would fail to force consumers to bear the full costs of their consumption decisions. The cost that the lottery would impose on each consumer would be the expected loss discounted by the probability of "winning" the lottery.

in question, yet bear its burdens, while heavy users of the product outside the host neighborhood would bear no burden at all.³⁰⁶

Compensation schemes may be the most effective means of forcing cost internalization,³⁰⁷ but compensation would still pose many of the problems noted in connection with the theory of compensation as equal division of burden. For example, some of the moral arguments against compensation remain.³⁰⁸ Even if all costs are perfectly internalized, asking some, but not others, to be a LULU's victims (albeit compensated ones) may be wrong. In that sense, the cost-internalization theory is too narrow in its focus. Fairness usually is thought to mean something more than, or perhaps even something inconsistent with, efficiency.³⁰⁹ Accordingly, cost-internalization may be a necessary condition for fairness, but it is insufficient to fully explain our uneasiness about disproportionate siting patterns.

The practical problems of calculating the full costs of a LULU and determining who should receive compensation also remain.³¹⁰ The problem of ensuring that all costs are accounted for is especially troubling. Compensation set at a negotiated level, for example, would undermine the goal of full internalization unless negotiations were carefully structured to ensure that the community did not settle for insufficient compensation.³¹¹ The community might undervalue the cost of illnesses or injuries caused by the facility, for example, if current residents believed that such incidents would be covered by Medicare, employer's insurance policies, or Social Security disability benefits. Also, the community might undervalue the cost of a particular risk because it has less information about the risk than the site developer, or is less able to translate risk into dollar terms. Furthermore, the process by which the community negotiates a compensation package may undervalue the inter-

³⁰⁶ The overinclusiveness of a physical distribution scheme would be particularly problematic if the immediate neighbors of the LULU, who would suffer the greatest harm from the siting, were not consumers of the product. *See supra* notes 158-160 and accompanying text.

³⁰⁷ Some of the harms imposed by a LULU, such as the risk of death or injury, are difficult to translate into monetary terms, and therefore difficult to charge for in a compensation scheme. *See supra* notes 217-19 and accompanying text. This problem also may plague physical distribution schemes, however, if those schemes require that disparate measures of burden, such as health risk and property damage, be reduced to a common metric such as dollar value. *See supra* notes 170-71 and accompanying text.

³⁰⁸ *See supra* notes 202-12 and accompanying text.

³⁰⁹ *See* Ronald M. Dworkin, *Is Wealth a Value*, 9 J. LEGAL STUD. 191 (1980).

³¹⁰ *See supra* notes 213-29 and accompanying text.

³¹¹ A community might demand more than its actual damages, but that would not interfere with the internalization function of compensation. Of course, if all communities demanded too much for the facility, thereby blocking its siting, the compensation scheme would fall apart.

ests of a particular subgroup within the community.³¹² Protecting against such bargaining failures would be costly and difficult.³¹³ Similarly, the mechanism for assessing the compensation level would have to ensure that compensation did not encourage inefficient behavior, for example, by making it unnecessary for victims to take inexpensive cost avoidance measures.³¹⁴

Finally, proponents of the internalization theory must confront the possibility that the resulting siting patterns may harm the non-environmental interests of poor and minority neighborhoods. Some people may lose jobs if the efficient level of production of a particular product is lower than the current level.³¹⁵ If the siting program is not instituted uniformly in all relevant jurisdictions, those industries within the jurisdiction adopting the program may suffer from a competitive disadvantage.³¹⁶ Similarly, if industries may escape the internalization mechanism of the siting program by going elsewhere, the jurisdiction may lose jobs and other benefits afforded by the industry.³¹⁷ The price of goods or services may rise significantly as a result of the internalization program, and that price increase may fall heavily upon the poor, depending upon consumption patterns.³¹⁸

Thus, the internalization theory fails to capture much of the sense of unfairness felt by a community selected as the host for a

³¹² See, e.g., Vicki Been, *Neighbors Without Recourse: Inconsistencies in the Political Theory of Compensated Siting* (unpublished manuscript on file with author, 1993); Gerrard, *supra* note 168, at 217-18.

³¹³ Been, *supra* note 312. For situations in which communities settled nuisance disputes with polluters in a manner unlikely to have forced internalization of the full costs of pollution, see, e.g., Bullard, *supra* note 8, at 65-69.

³¹⁴ See *supra* notes 234-36 and accompanying text.

³¹⁵ See Baumol & Oates, *supra* note 95, at 250-52. Of course the jobs lost in the siting industry may be made up in other industries that respond to demand for substitute products or that produce pollution control technology. *Id.* at 251.

³¹⁶ Baumol & Oates, *supra* note 95, at 251.

³¹⁷ Richard B. Stewart, *Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 *YALE L. J.* 1196, 1212 (1977). For a critical appraisal of Professor Stewart's theory, see Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking the "Race to the Bottom" Rationale for Federal Environmental Regulation*, 67 *N.Y.U. L. REV.* 1210 (1992).

³¹⁸ Baumol & Oates, *supra* note 95, at 252-53. For examples of environmental controls whose costs are regressive because of the consumption patterns or living situations of the poor, see David Harrison, Jr., *Who Pays for Clean Air* 81-83 (1975); Nancy S. Dorfman & Arthur Snow, *Who Will Pay for Pollution Control?—The Distribution by Income of the Burden of the National Environmental Protection Program, 1972-1980*, 28 *NAT'L TAX J.* 101 (1975); Robert Dorfman, *Incidence of the Benefits and Costs of Environmental Programs*, 67 *AM. ECON. ASS'N PAP. & PROC.* 333, 334 (1977); A. Myrick Freeman III, *The Incidence of the Cost of Controlling Automotive Air Pollution*, in *THE DISTRIBUTION OF ECONOMIC WELL-BEING* 163 (F.T. Juster ed., 1977); Leonard P. Gianessi & Henry M. Peskin, *The Distribution of the Costs of Federal Water Pollution Control Policy*, 56 *LAND ECON.* 85, 95 (1980); Henry M. Peskin, *Environmental Policy and the Distribution of Benefits and Costs*, in *CURRENT ISSUES IN U.S. ENVIRONMENTAL POLICY* 144, 159 (Paul R. Portney ed., 1978).

LULU. Even if the costs of the LULU were perfectly internalized by those benefitted by the LULU and the host community were fully compensated for its injuries, the community could still legitimately ask why it was forced to serve as society's sacrifice zone. As a component of a theory of fairness, however, the notion that those who consume a product or make a decision about the distribution of society's resources should be forced to bear the entire cost of their choices has obvious attraction. Nevertheless, like several of the other theories discussed, the internalization theory requires significant advances in society's ability to determine the true cost of LULUs.³¹⁹

C. Fairness as Process

Rather than focusing on the distribution of burdens to determine whether the siting process is equitable, the fairness as process theory focuses on the procedures by which the burden is distributed. The most obvious theory of fairness as process would assert that a distribution is fair as long as it results from a process that was agreed upon in advance by all those potentially affected.³²⁰ Although there are examples of interstate siting compacts³²¹ and regional intrastate siting agreements,³²² in which all participants voluntarily agree to a particular siting process, most LULUs are sited in communities that had no opportunity to remove themselves from the selection process. Therefore, this Section focuses on theories of fairness as process that do not rest upon voluntary agreement for their legitimacy.

1. *Fairness Requires A Lack of Intentional Discrimination*

A siting decision motivated by hostility toward people of a particular race is unfair under almost any theory of justice, and would not be considered fair under the Constitution.³²³ Under the intentional discrimination theory, fairness requires that a decision to site

³¹⁹ See *supra* notes 310-14 and accompanying text.

³²⁰ See ENGLISH, *supra* note 133, at 130-31, 134-37.

³²¹ See, e.g., *id.* at 117-25 (describing the Southeast Compact's efforts to choose a state to host a low-level radioactive waste disposal facility).

³²² See, e.g., Morell, *Siting and the Politics of Equity*, in RESOLVING LOCATIONAL CONFLICT, *supra* note 4, at 117, 129-33 (discussing the activities of the regional Southern California Hazardous Waste Management Project).

³²³ This analysis ignores discrimination on the basis of gender, religion, national origin, age, or sexual preference because claims of discriminatory siting focus primarily on the race and class of the neighborhoods chosen for LULUs. See, e.g., the studies discussed *supra* notes 39-67 and accompanying text. See also E.P.A. WORKGROUP REPORT I, *supra* note 141, at 2 ("while there are many types of equity . . . this report [on environmental equity] focuses on racial minority and low-income populations.").

a LULU be made without any intent to disadvantage people of color.³²⁴

The first problem with an intentional discrimination theory is the difficulty of proving intent. Many in the environmental justice movement charge that developers and siting officials "deliberate[ly] target[] people of color communities for toxic waste facilities."³²⁵ Siting opponents have yet to prove that charge to the satisfaction of a court.³²⁶ Their efforts have been stymied, in part, by the general difficulty of proving the intent of a legislative or administrative body.³²⁷ That difficulty is compounded in the siting context because siting choices tend to involve a series of decisions by a variety of multi-member entities.³²⁸

But the failure of proof also stems from specific gaps in the disproportionate impact evidence that environmental justice advocates have used to support the claim of intentional discrimination. As dis-

³²⁴ Disparate impact is not presented here as an independent theory of fairness. To the extent that disparate impact allows an inference that the siting decisionmaker acted with discriminatory purpose, the disparate impact theory is simply a tool to flush out intentional discrimination. If, on the other hand, the disparate impact theory is viewed as an assertion that a practice that is not intentionally discriminatory is nevertheless wrong because of its disparate impact upon one race or social class, a further theory about why a disparate impact is unfair is required. The disparate impact theory thus does not stand on its own, but must be linked to either the intentional discrimination theory or one of the other theories outlined here.

For discussions of whether disparate impact alone should trigger strict judicial scrutiny, see, e.g., LAURENCE A. TRIBE, *AMERICAN CONSTITUTIONAL LAW* 1514-21 (1988); Theodore Eisenberg, *Disproportionate Impact and Illicit Motive: Theories of Constitutional Adjudication*, 52 N.Y.U. L. Rev. 36, 42-83 (1977); John Hart Ely, *Legislative and Administrative Motivation in Constitutional Law*, 79 YALE L. J. 1205, 1255-63 (1970); Owen M. Fiss, *A Theory of Fair Employment Laws*, 38 U. CHI. L. REV. 235, 265-81 (1971).

³²⁵ Grossman, *supra* note 8, at 31 (quoting Rev. Benjamin Chavis, former Executive Director of the Commission for Racial Justice, and one of the founders of the environmental justice movement); David Lapp, *The Reverend Jesse Jackson: Fighting for the Right to Breathe Free*, E MAC., May/June 1992 at 10 ("They have put these poisonous wastelands nearest the black, the brown and the poor—the line of least resistance" (quoting Rev. Jesse Jackson)); *Have Minorities Benefitted . . . ? A Forum*, 18 EPA J. 32, 36 (1992) ("[P]oor communities have been less likely to forge successful battles of resistance against federal, state, and local agencies and industries who target their communities for the siting of undesirable 'but necessary' polluting facilities.") (quoting statement of Beverly Wright)); *The Grassroots Movement for Environmental Justice*, EVERYONE'S BACKYARD, Feb. 1993, at 3 ("Low-income, blue collar, rural, and people of color communities were singled-out as ideal territories to pollute for profit.").

³²⁶ See *supra* notes 10-11 and accompanying text.

³²⁷ See, e.g., Paul Brest, *Palmer v. Thompson: An Approach to the Problem of Unconstitutional Legislative Motive*, 1971 SUP. CT. REV. 95, 119-24; Alan E. Brownstein, *Illicit Legislative Motive in the Municipal Land Use Regulation Process*, 57 U. CIN. L. REV. 1, 44-53 (1988); J. Morris Clark, *Legislative Motivation and Fundamental Rights in Constitutional Law*, 15 SAN DIEGO L. REV. 953, 973-78 (1978); Eisenberg, *supra* note 324, at 114-17; Ely, *supra* note 324, at 1212-17, 1275-79; Joseph Tussman & Jacobus tenBroek, *The Equal Protection of Laws*, 37 CALIF. L. REV. 341, 359 (1949). See also Charles R. Lawrence III, *The Id, the Ego, and Equal Protection: Reckoning With Unconscious Racism*, 39 STAN. L. REV. 317 (1987).

³²⁸ See Brownstein, *supra* note 327, at 46-47.

cussed in Part II, the evidence fails to establish that siting decisions have an immediate disproportionate impact because most studies do not examine the demographics of communities at the time the siting decisions were made.³²⁹ In addition, the evidence often is flawed by its failure to control variables other than race that may explain the distribution of LULUs.³³⁰

If further research remedies the gaps in the evidence that the siting of LULUs has a disproportionate impact on poor and minority communities, the discriminatory intent theory must then specify what explanations for the disproportionate impact can undermine the inferences of discrimination that it raises.

For example, should a disproportionate impact that results from considerations of need in the siting process give rise to an inference of discriminatory purpose? To return to an earlier example, assume that AIDS hospices were considered LULUs and that AIDS victims in a particular city were disproportionately people of color. It seems appropriate to site more of the hospices in neighborhoods whose residents are suffering the most, but those neighborhoods may assert that the care of particular residents is a burden that society as a whole should shoulder. Similarly, a disproportionate impact may result from considerations of cost, proximity to customers, clients or related services, existing land use restrictions or disparities

³²⁹ See *supra* notes 81-91 and accompanying text.

³³⁰ Most of the studies do not, for example, control for the neighborhoods' political power. The two exceptions reach inconclusive results. Professor James Hamilton found that a county's potential for political action (as measured by the percentage of its voting age population that voted in the 1980 presidential election) correlated with whether a hazardous waste facility reported in 1987 that it planned to expand its waste processing capacity within that county, while the race and income of the county were not significant predictors of expansion plans. Hamilton, *supra* note 6, at 118. Professor Hamilton found, however, that race was a significant predictor of where hazardous waste facilities located in the 1970s, while political action was not. *Id.* at 122. Professors Greenberg and Anderson found that the presence of hazardous waste sites in New Jersey's communities did not correlate with political variables such as distance from the county seat, existence of planning boards and staffs, or strength of the community's government. GREENBERG & ANDERSON, *supra* note 55, at 157.

Other variables that may confound the correlation between the location of LULUs and neighborhood demographics include the propensity of hazardous waste facilities to locate in urban areas, the costs of land, labor, and siting processes in different communities, differences in proximity to adequate transportation networks and to customers or clients, physical characteristics of available land, and prior land use patterns. See *id.* at 156-60; Gelobter, *supra* note 49, at 71-72; Gerrard, *supra* note 168, at 119-23. Some of the existing studies attempt to control for some of these variables. See CRJ, *supra* note 46, at 10 (analyzing the correlation between the location of LULUs and proxies for costs and proximity to customers); GREENBERG & ANDERSON, *supra* note 55, at 156-60 (analyzing the correlation between the location of hazardous waste sites and measures of cost, proximity to customers and transportation, land use patterns and geological characteristics).

in neighborhood political power.³³¹ Determining which of those considerations may defeat an inference of intentional discrimination arising from a disproportionate impact raises many of the same conceptual problems that vex the equal treatment theory discussed earlier.³³²

Even if these problems regarding evidence of disproportionate impact can be resolved, disproportionate impact alone will rarely suffice to prove intentional discrimination.³³³ Further, even if proof of intentional discrimination can be developed, the theory of intentional discrimination nevertheless will be too narrow to address the problems of disproportionate siting. Some contend that poverty is not as significant a predictor of the location of LULUs as race,³³⁴ but significant evidence exists that poor communities also bear a disproportionate share of the burdens of LULUs.³³⁵ Even if poor communities were not currently overburdened, any theory of fairness in siting that protected only members of racial minorities would lead to a disproportionate number of LULUs in poor white communities.³³⁶

A theory of fairness limited to the absence of intentional discrimination is too underinclusive to solve the problem of disproportionate siting. As a component of a broader theory of fairness, problems of proof will limit its usefulness in the siting context. In addition, when used to evaluate the appropriateness of a siting decision, the theory must address the issue of what siting concerns are legitimate counters to inferences of racial discrimination.

2. *Fairness Requires Treatment as Equals*

Even if discrimination is unintentional or based upon characteristics that do not trigger strict scrutiny under the Equal Protection Clause,³³⁷ disproportionate siting arguably would be inappropriate if it stemmed from a siting process that failed to treat people with

³³¹ In deciding whether to allow explanations such as political power to rebut an inference of discriminatory intent, it would be important to evaluate the relationship between racism and those seemingly neutral factors. The fact that minority communities tend to have less political power than white communities, for example, is attributable largely to roadblocks whites have put in the path of political participation by people of color.

³³² See *supra* notes 179-94 and accompanying text.

³³³ *Arlington Heights v. Metropolitan Hous. Dev. Corp.*, 429 U.S. 252 (1977).

³³⁴ CRJ, *supra* note 46, at 13; Mohai and Bryant, *supra* note 39.

³³⁵ See CRJ, *supra* note 46, at 13; GAO, *supra* note 41, at 4; Pfaff, *supra* note 6, at 14a; sources cited *supra* note 67.

³³⁶ See sources cited *supra* note 6.

³³⁷ U.S. CONST. amend. XIV, § 1.

“equal concern and respect,”³³⁸ instead valuing certain people less than others.³³⁹ Under this theory, if a siting process is more attentive to the interests of wealthier or white neighborhoods than to the interests of poor or minority neighborhoods, that process illegitimately treats the poor and people of color as unequal.³⁴⁰

Thus, if two potential sites were otherwise identical but one was in a poor neighborhood and one was in a wealthier neighborhood, society could not take note of the costs that the siting would impose on the wealthy, ignore the costs it would impose on the poor, and consequently site the LULU in the poor neighborhood. Nor could the siting decision consider the impact that the LULU would have on the poor, but discount that impact on the ground that the value of being free from certain kinds of risks or harms is worth less to poor people.³⁴¹ Instead, the siting decision would have to consider the interests of the poor just as fully and sympathetically as it considered the interests of the more wealthy.³⁴² If the decision-maker then concluded that both neighborhoods faced equal risk or loss, the choice between the two neighborhoods would have to be made with the flip of a coin or some other lottery mechanism.³⁴³

³³⁸ DWORKIN, TRS, *supra* note 270, at 273; see also RONALD DWORKIN, LAW'S EMPIRE 305, 408 (1986); Ronald Dworkin, *Liberalism, in PUBLIC AND PRIVATE MORALITY* 121 (Stuart Hampshire ed., 1978).

³³⁹ Professor Wright calls this a “stigmatic” injury. R. George Wright, *Hazardous Waste Disposal and the Problems of Stigmatic and Racial Injury*, 23 ARIZ. ST. L.J. 777, 784-87, 790 (1991).

³⁴⁰ Treating people or neighborhoods as equals does not demand that they receive equal treatment of the kind required by the equal division theory discussed earlier. See *supra* notes 137-57 and accompanying text. For a discussion of the difference between the concepts of treatment as equals and equal treatment, see WESTEN, *supra* note 22, at 4-6. In short, the treatment as equals notion of fairness provides an “entitlement[] to process or rationale, not to an outcome . . .” Kornhauser & Sager, *supra* note 143, at 495.

³⁴¹ See DWORKIN, TRS, *supra* note 270, at 273 (government must not “constrain liberty on the ground that one citizen’s conception of the good life of one group is nobler or superior to another’s.”).

³⁴² To treat the interests of people of color or the poor as equal to those of white or wealthier neighborhoods, the decisionmaker might need to consider whether the poor or minority neighborhood is in a subordinate position because of prior acts of discrimination and exploitation, and whether the siting of the LULU would perpetuate that subordination. That factor might tip the balance and require the site to be placed in the white, wealthier neighborhood. The justification for taking the poor or minority neighborhood’s status into account, even though favoring the white, wealthier neighborhood because of its privileged status would be illegitimate, could lie in the notion of equality of welfare, see Dworkin, *supra* note 178, at 186-87, 240-44, or in what Professor Tribe has referred to as the antisubjugation principle. TRIBE, *supra* note 324, at 1515-21. See also T. Alexander Aleinikoff, *A Case for Race Consciousness*, 91 COLUM. L. REV. 1060, 1116-17 (1991); Fiss, *supra* note 160, at 157-60.

³⁴³ Lotteries are not the only just way to decide how to allocate a burden among similarly situated communities entitled to treatment as equals. The alternative, an impersonally arbitrary choice between the two communities, is impractical in this context, however. Kornhauser & Sager, *supra* note 143, at 502-03.

If the two potential sites were not identical, treatment as equals would require only that the harm that a site would cause to the poor be considered in exactly the same manner as the harm that a site would cause to the more affluent.³⁴⁴ Thus, if siting the LULU in the poor neighborhood would expose five neighbors to a particular risk, while siting it in the wealthier area would expose twenty-five neighbors to risk, society would be justified under this theory in choosing the site in the poor neighborhood.

The notion that fair siting requires treating all potential host communities as equals is extremely difficult to implement on a practical level. The most plausible way to ensure that decision makers accord equal concern to all communities is through an "impact statement" requirement. This would require decision makers to consider all of the effects that a siting might have on a neighborhood, including its impact on health, the environment, and the neighborhood's quality of life.³⁴⁵ Theoretically, by forcing decision makers to examine the possible effects of a siting, the process would ensure that the decision reflects equal consideration for both communities. In reality, impact statements may give only the illusion of neutrality in their analysis of a facility's potential effects. Further, decisionmakers required to think about such effects may give only the illusion of consideration.

a. *The Illusion of Neutrality*

Like several other theories of fairness, the treatment as equals theory rests on the problematic premise that the costs and benefits that a LULU imposes upon communities are measurable, and that different costs and benefits can be reduced to a common metric.³⁴⁶ Even if that premise were true, impact statements detailing the potential effects of a siting still would not necessarily show equal concern for the interests of the poor and minorities.

For example, unequal concern could pervade the impact study through seemingly neutral cost/benefit analysis. Consider a study of the costs and benefits of two alternative sites that found only one difference: the proposed site in the wealthy neighborhood would cost twice as much as the site in the poor neighborhood. If that cost difference reflected the spectacular ocean view enjoyed by the wealthy neighborhood, then the decisionmaker could choose the less expensive site without showing unequal concern for the inter-

³⁴⁴ DWORKIN, TRS, *supra* note 270, at 227, 273. Of course, the sacrifice of the five individuals might be considered wrong on other grounds.

³⁴⁵ See, e.g., National Environmental Policy Act of 1969, 42 U.S.C. § 4321. See also *infra* notes 376-85 and accompanying text.

³⁴⁶ See *supra* notes 165-71, 198, 215-20 and accompanying text.

ests of the poorer neighborhood. But assume that the properties are identical in all respects, except for the racial and socioeconomic characteristics of their residents. Assume further that these racial and socioeconomic differences offer the only explanation for the different market values of the neighboring properties. Accordingly, unless land values were excluded from the cost/benefit analysis, that analysis would inject society's prejudice against the poor and minorities into the siting process.

Similarly, unequal concern could infiltrate the impact study through the criteria used to determine the sites suitable for consideration.³⁴⁷ A common siting criterion, for example, is the absence of any impact upon designated historical landmarks.³⁴⁸ To ensure that siting decisions based on that criterion were fair under this theory, one would have to establish either that buildings in wealthy neighborhoods are no more likely to be landmarked than buildings in poor neighborhoods, or that any disparity in landmarking is caused by factors other than unequal concern for the poor. Unequal concern could also creep into the process through the weight given to the criteria. If disruption of relationships among community members is given relatively low weight, for example, ethnic communities whose cultures emphasized such social networks would be afforded less concern than other communities.

b. *The Illusion of Consideration*

Impact statements have been used as a decision making tool since the adoption of the National Environmental Policy Act (NEPA) in 1970³⁴⁹ and the subsequent enactment of dozens of state "little NEPAs."³⁵⁰ The experience under these statutes has fostered great dissatisfaction with the impact statement as a tool for "making bureaucracies think."³⁵¹ There is no reason to believe that the tool

³⁴⁷ Cf. Kornhauser & Sager, *supra* note 143, at 507 (discussing the potential for allocations based upon seemingly neutral social values to exacerbate pre-existing injustices).

³⁴⁸ See, e.g., GREENBERG & ANDERSON, *supra* note 55, at 184 (describing criteria for siting hazardous waste facilities in New York); Karl S. Coplan, *Protecting Minority Communities with Environmental, Civil Rights Claims*, N.Y.L.J., Aug. 20, 1991, at 1 (discussing use of National Historic Preservation Act, 16 U.S.C. §§ 470 et seq., to oppose siting proposals).

³⁴⁹ 42 U.S.C. § 4332(2)(c) (1988).

³⁵⁰ For a survey of state "little NEPAs", see 2 FRANK P. GRAD, *TREATISE ON ENVIRONMENTAL LAW* § 9.08 (1992).

³⁵¹ The phrase is from SERGE TAYLOR, *MAKING BUREAUCRACIES THINK* (1984). For criticisms of NEPA, see Lynton K. Caldwell, *A Constitutional Law for the Environment: 20 Years With NEPA Indicates the Need*, 31 ENVIRONMENT, Dec. 1989, at 7; Daniel A. Dreyfus & Helen M. Ingram, *The National Environmental Policy Act: A View of Intent and Practice*, 16 NAT. RESOURCES J. 243, 251-53 (1976); Thomas France, *NEPA—The Next Twenty Years*, 25 LAND & WATER L. REV. 132, 135 (1990); James A. Henderson, Jr. & Richard N. Pearson, *Implementing Federal Environmental Policies: The Limits of Aspirational Commands*, 78 COLUM.

will work any better in forcing siting authorities not only to think, but to think fairly.

To say that impact statements have not been successful at changing the way regulators think is not to say that they have been useless. Impact statements often give opponents of facilities ammunition to defeat a project³⁵² and sometimes lead developers to modify their proposals to avoid a particular environmental impact. Similarly, community impact statements will give some communities another tool with which to fight a siting. But unless all communities have equal resources to use such legal tools, the availability of impact statements is unlikely to result in a fairer distribution of LULUs.

Nor is it likely that developers will use impact statements to modify their projects to avoid an unfair impact. Avoiding unfairness is not equivalent to avoiding, for example, the destruction of an endangered species habitat. Society has a general notion of what it means to save wetlands, but has no shared conception of what it means to site LULUs fairly.³⁵³ What, then, is a developer to do upon learning that a proposed host community already has a noxious LULU, while an acceptable alternative community has no noxious LULUs but six social services LULUs? Rather than agonizing over the "right" thing to do, developers will seek to minimize their costs, which usually will mean putting the LULU in the community least able to use the impact statement to fight the siting. That solution is unlikely to result in a fairer distribution of LULUs; indeed, it

L. REV. 1429, 1462 (1978); Sen. Edmund S. Muskie & Eliot R. Cutler, *A National Environmental Policy: Now You See It, Now You Don't*, 25 ME. L. REV. 163, 172 (1973); Joseph L. Sax, *The (Unhappy) Truth About NEPA*, 26 OKLA. L. REV. 239, 245-48 (1973); Stewart E. Sterk, *Environmental Review in the Land Use Process: New York's Experience with SEQRA*, 13 CARDOZO L. REV. 2041, 2046-84 (1992). *But see* COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL IMPACT STATEMENTS: AN ANALYSIS OF SIX YEARS' EXPERIENCE BY SEVENTY FEDERAL AGENCIES 23-25 (1976) (citing examples of the influence environmental impact studies had on federal decisions, and reporting that most federal agencies reported that the EIS process was an important aid in planning and decisionmaking). Taylor's comprehensive study of the effect of NEPA on decisions of the Corps of Engineers and the Forest Service produced mixed results. Taylor, *supra*, at 130. It found that "all districts and forests do better in terms of avoiding environmental damage than they did before NEPA." But it found that the potential effectiveness of impact statements depends upon a complex balance of conditions. *Id.* at 295-313. Many of those conditions would not apply to the siting context. For example, NEPA forced the federal bureaucracy to hire thousands of environmental analysts committed to environment protection who worked from within to change the way the agencies approached their tasks. *Id.* at 252-53. It is far from clear that requiring an impact statement about the social effects that a siting would have on a community would lead state and local siting agencies, or even federal permitting agencies, to add sociologists or environmental justice advocates to their staffs.

³⁵² See, e.g., Christopher A. Sproul, Comment, *Public Participation in the Point Conception LNG Controversy: Energy Wasted or Energy Well-Spent?*, 13 ECOLOGY L.Q. 73, 87 (1986).

³⁵³ See *supra* notes 14-23 and accompanying text.

is simply another version of the path of least resistance method of siting that many believe led to the current inequitable siting pattern.³⁵⁴ To achieve real change in the concern that siting decisionmakers show for the effects that LULUs have on poor and minority communities, the treatment as equals theory will have to devise a better approach than impact statements.

IV

LEGISLATIVE APPROACHES TO THE DISCRIMINATORY SITING PROBLEM

Five major legislative strategies for preventing discriminatory siting have been adopted by state and local governments or proposed for federal legislation.³⁵⁵ This Part briefly summarizes each approach, analyzes which conceptions of fairness are embodied by each approach, and critiques how well each addresses the problems that Part III raised about those conceptions.

A. The Dispersion Approach

Dispersion ordinances were the first type of legislation that addressed disproportionate siting. Such ordinances stemmed primarily from the deinstitutionalization movement—the shift from treating the mentally disabled in large institutions to integrating them into the community through residential group homes. Initially, communities resisted group homes in their neighborhoods by attempting to zone out such homes by defining “single family residences” as including only people related by blood or marriage.³⁵⁶ Eventually, most states pre-empted local zoning regulations and prohibited discrimination against group homes.³⁵⁷ Many state statutes contain dispersion mechanisms designed to reassure neighborhoods that they will not receive more than their fair share of group homes and to ensure that municipalities do not create a group home

³⁵⁴ See *supra* note 6 and accompanying text.

³⁵⁵ I do not address proposals that seek to prevent any facility siting that would impose a risk to the environment or to human health and safety. For example, environmental justice advocates in the San Diego area have proposed a “Toxics Free Neighborhood” zoning ordinance amendment that would create a buffer between industry and residential areas, schools, and churches. Industry currently located in the buffer zones would be required to either clean up or move out within five years. Kay, *Ethnic Enclaves*, *supra* note 59, at A8.

³⁵⁶ For descriptions of the community resistance to efforts to deinstitutionalize mentally disabled persons, see DAVID J. ROTHMAN & SHEILA M. ROTHMAN, *THE WILLOW-BROOK WARS 187-88* (1984); Robert L. Schonfeld, “Not in My Neighborhood:” *Legal Challenges to the Establishment of Community Residences for the Mentally Disabled in New York State*, 13 *FORDHAM URB. L.J.* 281, 288-90 (1985).

³⁵⁷ Jaffe & Smith, *supra* note 62, at 16-20.

ghetto instead of "mainstreaming" the homes into residential areas.³⁵⁸

The dispersion mechanisms often prohibit "undue" or "excessive" concentration of social service LULUs or mandate arbitrary distances between group homes.³⁵⁹ A few statutes are more precisely targeted.³⁶⁰ New Jersey allows a municipality to disapprove a group home if the municipality already has more than 50 residents in existing group homes or if the number of residents in existing homes is more than 0.5 percent of the municipality's population.³⁶¹ Wisconsin requires that the total capacity of group homes not exceed 25 persons or 1 percent of the municipality's population.³⁶² Similarly, Oregon requires that the number of "domiciliary care facilities" within a county be based upon the relationship between the county's population and the number of persons from the county needing care.³⁶³ Alabama, which has adopted the dispersion approach for LULUs other than group homes, prohibits the siting of more than one commercial hazardous waste treatment or disposal site per county.³⁶⁴

The Environmental Justice Act of 1992³⁶⁵ proposed by Congressman John Lewis, while different in form from the group home ordinances, essentially adopts the dispersion approach. The Act would require the Environmental Protection Agency to identify the

³⁵⁸ See, e.g., Ann Kennedy Grossman, *Community Integration of Persons with Mental Illness: A Legislative Proposal to Combat the Exclusionary Zoning of Community Residential Programs*, 7 LAW & INEQ. J. 215, 219, 252-54 (1989) (discussing Minnesota legislation).

³⁵⁹ For surveys of statutes governing group homes, see Jaffe & Smith, *supra* note 62, at 17-19; Lester D. Steinman, *The Effect of Land-Use Restrictions on the Establishment of Community Residences for the Disabled: A National Study*, 19 URB. LAW. 1 (1987); DEVELOPMENTAL DISABILITIES STATE LEGISLATIVE PROJECT OF THE A.B.A. COMM'N ON THE MENTALLY DISABLED, ZONING FOR COMMUNITY HOMES SERVING DEVELOPMENTALLY DISABLED PERSONS (1978), reprinted in 2 MENTAL DISABILITY L. REP. 794, 800-02 (1978).

³⁶⁰ In addition to the statutes discussed in the text, see 24 C.F.R. § 880.206 (1992) (sites for new assisted housing construction projects must avoid "undue concentration" of assisted housing tenants); 24 C.F.R. § 941.202 (1993) (same, for public housing projects); see also 58 Fed. Reg. 4262-01 (Jan. 13, 1993) (proposing regulations to be codified at 24 C.F.R. § 770 which define "undue concentration" as areas in which more than 40% of the population have incomes below the poverty level).

³⁶¹ N.J. REV. STAT. § 40:55D-66.1 (1990).

³⁶² WIS. STAT. ANN. § 59.97(15) (West 1988).

³⁶³ OR. REV. STAT. § 443.225 (1991).

³⁶⁴ ALA. CODE § 22-30-5.1 (1990). Legislation passed in Michigan in 1987 required its state hazardous waste management plan to provide for "a reasonable geographic distribution of treatment, storage, and disposal facilities to meet existing and future needs . . ." but does not actually prohibit concentration of the facilities. MICH. COMP. LAWS ANN. § 299.509 (2)(f) (West Supp. 1992).

³⁶⁵ H.R. 2105, 103d Cong., 1st Sess. (1993). The Environmental Justice Act of 1993 introduced by Senator Baucus (D-Mont.), S.1161, 103d Cong., 1st Sess. (1993), tracks Congressman Lewis' proposal in many respects, but does not include a moratorium requirement and therefore does not adopt a dispersion approach.

100 counties or other geographical units which contain the highest total weight of toxic chemicals.³⁶⁶ The Act would then require the Secretary of Health and Human Services to study the nature and extent of any acute and chronic health impacts in those 100 areas, referred to as Environmental High Impact Areas (EHIAs).³⁶⁷ If the study found a significant adverse health impact from pollution in the EHIAs, then the Act would declare a moratorium on any further toxic chemical facility permits in the area until pollution is reduced to the level necessary to avoid adverse health impacts.³⁶⁸

The dispersion approach reflects the equal division notion of fairness, specifically the notion that the burden of LULUs must be physically distributed on a proportional basis. But the dispersion statutes adopt a weak view of what constitutes an equal physical distribution, in that they require the dispersion of LULUs only if a neighborhood reaches some threshold of saturation. The group home statutes, for example, say nothing about how the first home will be distributed.³⁶⁹ For instance, if a town needs four group homes, it can place all four in the town's minority neighborhoods. White neighborhoods would not bear any of the burden unless the number of homes needed exceeds the number of minority neighborhoods. Similarly, the proposed Environmental Justice Act of 1992 shows no concern for what happens to facilities sited outside EHIAs. Indeed, the Act could foster a siting pattern in which all of the facilities turned away from the worst 100 areas will locate instead in the next worst 100 areas.

Because the dispersion approach adopts a weak view of equal treatment, it does not encounter some of the definitional problems that the equal physical distribution theory generally entails.³⁷⁰ This is not a virtue, however, because it reflects a simplistic insensitivity to many factors affecting the fairness of a siting pattern. For example, the group home statutes do not address whether any sites outside the saturated areas are appropriate for group home sites.³⁷¹ The statutes thus avoid having potential sites eliminated from consideration by political determinations of suitability. The result,

³⁶⁶ H.R. 2105, 103d Cong., 1st Sess. § 102(B) (1993).

³⁶⁷ H.R. 2105, 103d Cong., 1st Sess. § 401 (1993).

³⁶⁸ H.R. 2105, 103d Cong., 1st Sess. § 403 (1993). Exceptions to the moratorium are allowed if there is a need for the facility, and if the facility will implement a comprehensive pollution prevention program and minimize uncontrolled releases. The moratorium applies only to facilities that emit toxic chemicals in "quantities found to cause significant adverse impacts on human health."

³⁶⁹ See sources cited *supra* note 359.

³⁷⁰ See *supra* notes 165-98 and accompanying text.

³⁷¹ For a discussion of the effect dispersion ordinances may have in reducing the number of sites available for group homes for the mentally disabled, see Jaffe & Smith, *supra* note 62, at 13-16; Grossman, *supra* note 358, at 253.

however, may be the selection of sites that are less accessible to other social services or means of transportation or are less safe, without any consideration of the divergent goals of fairness, safety and convenient access to support services.³⁷²

Similarly, most of the group home statutes address only the burden of group homes, and do not require a comprehensive assessment of a neighborhood's burden from all LULUs.³⁷³ A service provider prohibited from locating another group home within a working class neighborhood may have to locate the home in a minority neighborhood that lacks a group home, but hosts a prison, a homeless shelter, and a sewage treatment plant. The Environmental Justice Act of 1992 shows a similar lack of concern for the totality of a neighborhood's burden. Although it declares a moratorium on the siting of any new toxic chemical facility within the EHIA,³⁷⁴ the Act does not prevent the facility from locating in a neighborhood overburdened by social service facilities but below the threshold on other chemical facilities.

The arbitrary thresholds in dispersion statutes also reflect a simplistic notion of neighborhood. For example, a Texas statute forbids the location of group homes within one-half mile of another, with no distinction between high density areas in Houston, and low density suburban or rural locations.³⁷⁵ Congressman Lewis' proposed Environmental Justice Act's definition of an EHIA also fails to differentiate between areas that either contain or abut numerous residential neighborhoods and those that do not. Facilities turned away from the 100th EHIA might locate instead in the area that is 101st on the list, even though that area has ten times the population density of the EHIA.

Thus, the dispersion approach reflects an extremely weak notion of equal treatment in the physical distribution of LULUs. The feebleness of the notion renders the dispersion approach incapable of protecting neighborhoods other than those already suffering the most egregious overconcentrations of LULUs. In protecting those neighborhoods, the approach is insensitive to a host of concerns that should inform any siting decision.

B. Impact Statement Approach

The second approach taken by a few states is the impact statement approach. One version of this approach requires the agencies

³⁷² For a discussion of the potential benefits of having social service facilities in close geographical proximity to one another, see Dear, *supra* note 3, at 294.

³⁷³ See sources cited *supra* note 359.

³⁷⁴ H.R. 2105, 103d Cong., 1st Sess., § 403 (1993).

³⁷⁵ TEX. HUM. RES. CODE ANN. § 123.008 (1993 Supp.).

responsible for proposing sites for group homes to maintain statistics regarding the number and location of other such facilities within a neighborhood.³⁷⁶ These agencies must consider the concentration of uses in choosing or approving sites.³⁷⁷ The concentration statistics are available to the public for use in opposing further facilities.³⁷⁸

Several states have adopted an alternative version of the impact statement approach that does not mandate an analysis of the concentration of uses, but nevertheless requires decisionmakers to consider the impact a siting will have on the quality of life in the community. Kentucky, for example, requires licensing agencies to consider "community perceptions and other psychic costs."³⁷⁹ Similarly, the New York and South Dakota versions of NEPA require environmental impact statements to contain information about a proposed development's impact on socioeconomic factors such as "existing patterns of population concentration, distribution, or growth, and existing community or neighborhood character."³⁸⁰

Several more explicit impact statement requirements have been proposed. Congressman William Clinger, Jr. (R-Pa.) and Senator John Glenn (D-Ohio) have sponsored a bill that would require that the process for granting permits to any new solid waste treatment or disposal facilities include consideration of a "community information statement."³⁸¹ This statement would be prepared by an independent contractor selected by the developer and the chief elected official of the community.³⁸² The statement would include information about the facility's impact on matters such as the community's employment, housing, public safety and health, emergency preparedness, transportation systems and recreational amenities.³⁸³ The statement would also detail the demographic characteristics of

³⁷⁶ See N.Y. MENTAL HYG. LAW § 41.34(c)(1) (McKinney 1988); OKLA. STAT. tit. 60, § 863 (1991); OR. REV. STAT. § 443.422 (1991).

³⁷⁷ See FLA. STAT. ch. 419.001 (1993).

³⁷⁸ See N.Y. SOC. SERV. LAW § 463-a (consol. 1984); 60 OKLA. STAT. § 863 (1991).

³⁷⁹ KY. REV. STAT. ANN. § 224.40-310 (Michie/Bobbs-Merrill 1991).

³⁸⁰ N.Y. ENVTL. CONSERV. LAW § 8-0105(6) (McKinney 1984); S.D. CODIFIED LAWS ANN. § 34A-9-1(4) (1992). See also CONN. GEN. STAT. ANN. 22a-1b (West Supp. 1993); HAW. REV. STAT. § 343-2 (1985 & Supp. 1992); MD. CODE ANN., NAT. RES. § 1-301(b) (1989).

³⁸¹ H.R. 495, 103d Cong., 1st Sess. (1993); S.533, 103d Cong., 1st Sess. (1993).

³⁸² H.R. 495 at § 1(a)(b). If the community and the developer could not agree upon an independent contractor, the permitting authority would select one.

³⁸³ *Id.* at § 1(a)(d).

the host community³⁸⁴ and the presence of other waste sites within the community.³⁸⁵

In seeking to ensure that siting authorities consider the burdens communities already bear and the additional injuries LULUs may impose, impact statement approaches try to raise concern for poor and minority communities to the level already shown to wealthier and white communities. Thus, they reflect the "treatment as equals" notion of fairness.³⁸⁶ Additionally, the impact statement requirements adopt a weak notion of equal physical distribution.³⁸⁷ Like the dispersion statutes,³⁸⁸ they implicitly presume that sites proposed in communities already bearing some threshold amount of burden should be scrutinized. Their main concern is not how facilities are sited generally, but whether some communities have reached a threshold of concentration.

None of the impact statement requirements adopted or proposed address the many problems of the treatment as equals theory.³⁸⁹ All are vague about how "concentration" or "impact" is to be measured. Accordingly, unequal concern can creep into the process through the measurements used. Because the requirements apply only at the final stages of site selection,³⁹⁰ there is no check on whether equal concern was afforded to the poor and minorities in arriving at the short list of suitable sites. Additionally, few of the

384 *Id.* at § 1(a)(d)(4). Similarly, the Commission for Racial Justice called upon the President to issue an executive order directing all executive branch agencies with responsibility for regulating hazardous wastes to "assess and consider the impact of their current policies and regulations on racial and ethnic communities, and take such considerations into account when establishing new policies and promulgating new regulations." CRJ, *supra* note 46, at 24. The CRJ also has suggested that the Environmental Protection Agency should establish an office to "monitor the siting of new hazardous waste facilities to insure that adequate consideration is given to the racial and socioeconomic characteristics of potential host communities." *Id.*

385 H.R. 495, 103d Cong., 1st Sess. § 1(a)(d)(5) (1993).

386 *See supra* notes 337-44 and accompanying text.

387 *See supra* notes 137-51 and accompanying text.

388 *See supra* notes 356-68 and accompanying text.

389 *See supra* notes 346-54 and accompanying text.

390 *See, e.g.*, S. 533, 103d Cong., 1st Sess. § 1(a)(a)(3) (1993) (proposed community information statement about a potential host community shall be considered in final decision about permitting a hazardous waste treatment or disposal facility; no requirement that statement be prepared for other sites considered for the facility); Ky. REV. STAT. ANN. § 224.40-310 (Michie/Bobbs-Merrill 1992) (in deciding whether to approve a hazardous waste facility, decisionmaker shall consider the social and economic impact of the facility on the proposed host community; no requirement that the decisionmaker consider the impact the facility would have on alternative sites). Environmental impact statements typically must discuss alternative sites, but the requirement is vague about how alternatives are to be selected. *See, e.g.*, MICHAEL B. GERRARD ET AL., ENVIRONMENTAL IMPACT REVIEW IN NEW YORK § 5.14[2][f][i] (1990 & 1992 Supp.). In addition, when the proposed facility is privately owned, the alternatives need only include other properties owned or optioned by the developer. *Id.*

requirements specify how the LULU's impact on the proposed host neighborhood's quality of life or concentration of burdens should be weighed against other siting considerations.³⁹¹

Given the NEPA model, it is not surprising that environmental justice advocates have endorsed an impact statement approach. However, the proposed impact statement offers little more than what already exists in many states. Environmental impact statements have included information about a facility's socioeconomic impact for years.³⁹² Similarly, many state siting statutes have required decisionmakers to take community impacts into account in permitting waste facilities.³⁹³ Neither requirement has been shown to have any effect on the distribution of LULUs.

C. The Fair Share or Mathematical Formula Approach

A third technique legislatures use to ensure that the burden of a particular land use is dispersed throughout all communities is the fair share approach. This approach was made famous by the New Jersey Supreme Court's *Mount Laurel* decisions, which attempted to force exclusive suburbs to open their doors to low and moderate income housing.³⁹⁴ Basically, the fair share approach uses mathematical formulas to quantify how low and moderate income housing should be allocated throughout a region.³⁹⁵

The fair share approach strives to ensure the availability of low income housing in a wide variety of neighborhoods and to foster

³⁹¹ See, e.g., S. 533, 103d Cong., 1st Sess. § 1(a)(3) (1993) (providing no guidance about how community impact information is to be weighed against other siting considerations); KY. REV. STAT. ANN. § 224.40-310 (Michie/Bobbs-Merrill 1991) (same); but see N.Y. COMP. CODES R. & REGS. tit. 6A-2, § 361.7 & app. 17 (1986) (assigning weights to each siting criteria).

³⁹² See, e.g., GERRARD, *supra* note 390, at § 5.12[12] (discussing New York's requirement that environmental impact statements study the effect the facility will have on "existing patterns of population concentration, distribution, or growth, and existing community or neighborhood character."); DANIEL R. MANDELKER, NEPA LAW AND LITIGATION §§ 8.07[6]-8.07[9] (1992) (discussing case law regarding when the federal NEPA requires consideration of socioeconomic effects); Reich, *supra* note 11, at 311-13.

³⁹³ See, e.g., ME. REV. STAT. ANN. tit. 38 § 1478(2) (West 1989) (hearings on proposed low-level radioactive waste facilities should address the social impact of the proposed facility on the surrounding area); MD. CODE ANN., NAT. RES. § 3-706 (1989) (applicant for approval of hazardous waste facility shall submit information to allow consideration of environmental, social, technical, and economic impacts of proposed facility); MONT. CODE ANN. § 75-10-920 (1991) (approval of waste facilities should include consideration of "social changes resulting from facility impact on population"); VT. STAT. ANN. tit. 10, § 7012(f)(1) (1991) (procedure for licensing of low-level radioactive waste facilities shall include study of the social and economic impacts on the communities surrounding the proposed facility).

³⁹⁴ Southern Burlington County NAACP v. Mount Laurel, 456 A.2d 390 (N.J. 1983); Southern Burlington County NAACP v. Mount Laurel, 336 A.2d 713 (N.J. 1975), *appeal dismissed and cert. denied*, 423 U.S. 808 (1975).

³⁹⁵ LISTOKIN, *supra* note 162, at 27-28.

economic and racial integration.³⁹⁶ To ensure success, however, the approach also seeks to distribute the burden of such housing fairly. It adopts the equal division notion of fairness³⁹⁷ by seeking to physically distribute low and moderate income housing on a proportional basis.

Fair share plans illustrate the enormous problems of definition, measurement, and weighing that the equal division conception of fairness involves. David Listokin's exhaustive survey of fair share housing allocation plans shows how each of the determinations necessary to allocate low and moderate income housing involves numerous value judgments, data interpretations and measurements.³⁹⁸ Listokin explains that existing fair share plans tend to use at least four major criteria to allocate low income housing: equal share, need, distribution, and suitability.³⁹⁹ Many plans use additional criteria, such as the area's past performance in providing such housing.⁴⁰⁰ Plans differ according to the combination of criteria and to the weight given to each criterion.⁴⁰¹ They also differ in the factors used to assess the general criteria.⁴⁰² The "suitability" criterion, for example, may involve an evaluation of cost availability, the nature and environmental quality of the land, the character of the surrounding environment, the extent of the local fiscal resources, and the nature and extent of transportation and public and private infrastructure.⁴⁰³ Each of those factors, in turn, may be measured in different ways. Local fiscal capacity, for example, may be measured by real estate value per capita or per school age child, personal income, sales tax revenue or revenue-sharing receipts.⁴⁰⁴

Even for a single type of LULU, mathematical determination of "fair share" is difficult because of the enormous number of value judgments and measurements that such determinations require. The need for many judgments about what factors to consider, and how they should be measured and weighed, introduces the possibility that such judgments will favor one type of neighborhood over

396 *Id.* at 1-26.

397 *See supra* notes 137-51 and accompanying text.

398 LISTOKIN, *supra* note 162, at 27-79.

399 *Id.* at 51-58.

400 *Id.* at 58-59.

401 *See id.* at 173-214 (describing the criteria and weighing procedures used in 25 fair share plans either proposed or implemented as of 1975).

402 *Id.* at 173-214; *see also* NEW JERSEY COUNCIL ON AFFORDABLE HOUSING, ISSUE PAPERS 3-6 (Nov. 27, 1990) [hereinafter ISSUE PAPERS] (on file with author) (describing process for determining need for New Jersey's fair share plans); N.J. ADMIN. CODE tit. 5, § 5:92-4.1-5:92-5.14 (1991) (discussing determination of need).

403 *See* ISSUE PAPERS, *supra* note 402, at 11-14; N.J. ADMIN. CODE tit. 5 §§ 5:92-8.1-5:92-8-6 (1991) (discussing the difficulty of determining land "availability.").

404 LISTOKIN, *supra* note 162, at 58, 173-214.

another.⁴⁰⁵ That possibility provides grounds for neighborhoods to resist the plan by challenging the accuracy of the data, evaluation or application of specific criteria. Listokin's survey of the implementation of seven fair share plans found a number of examples of such resistance and claims of unfairness.⁴⁰⁶

Additionally, Listokin notes a tension between the need to have the fair share formulas be as comprehensive and technically accurate as possible and the need to have a formula sufficiently simple and comprehensible to be credible to all neighborhoods.⁴⁰⁷ There is an additional discrepancy between what measurements or definitions might be fair and the availability of data.⁴⁰⁸ For example, neighborhoods may find a fair share plan based upon cultural and historical boundaries more credible than one based upon census tract definitions, but data for the former may not be available.⁴⁰⁹ Similarly, fair share plans lose credibility if they are based upon old data, but the more tailored the data, the more difficult and costly it may be to keep current.⁴¹⁰

While the fair share approach is extraordinarily complex and riddled with opportunities for subversion, some fair share housing plans have resulted in modest gains in the dispersion of low and moderate income housing.⁴¹¹ More research is needed, however, on the long-term effects of fair share housing plans and on whether such plans result in a greater perception of fairness among host neighborhoods. Even if that research reveals that fair share housing plans are successful, it may be difficult to replicate that success for LULUs posing risks to life and health or in programs involving several types of LULUs.

⁴⁰⁵ Siting processes have attempted to prevent such skewing by requiring agreement upon the applicable criteria and weighing before specific sites are at issue. But even then, those involved in evaluating the criteria may have a general idea about how different schemes would affect particular regions or communities. See, e.g., ENGLISH, *supra* note 133, at 129-130 (describing the process used by the Southeast Compact to identify a host state for a low-level radioactive waste disposal facility).

⁴⁰⁶ LISTOKIN, *supra* note 162, at 92-98, 118-27.

⁴⁰⁷ *Id.* at 74, 134-35.

⁴⁰⁸ *Id.* at 74, 134-35.

⁴⁰⁹ *Id.* at 31-33. See also *supra* notes 71-75, 172-75 and accompanying text.

⁴¹⁰ LISTOKIN, *supra* note 162, at 135.

⁴¹¹ LISTOKIN, *supra* note 162, at 87-127; Martha Lamar et al., *Mount Laurel at Work: Affordable Housing in New Jersey, 1983-1988*, 41 RUTGERS L. REV. 1197, 1258-60 (1989). But see Michael H. Schill, *Deconcentrating the Inner City Poor*, 67 CHI.-KENT L. REV. 795, 842 (1992) (number of housing units built under fair share approach is small).

D. The New York City Fair Share Criteria—The Hybrid Impact Statement/Fair Share Approach

In 1989, New York City adopted a new city charter containing two novel provisions intended to ensure that each of its neighborhoods bears its fair share of the burden of LULUs and receives its fair share of beneficial public services such as libraries and parks.⁴¹² The program adopted pursuant to the charter has received much acclaim in planning circles; for example, the American Planning Association gave New York a special award in 1992 for adopting the program.⁴¹³

The first provision, Section 203(a), requires the mayor to propose criteria for the location of new city facilities and the expansion, reduction in size or services, or closing of existing facilities.⁴¹⁴ The charter directs that these fair share criteria further the “fair distribution among communities of the burdens and benefits associated with city facilities, consistent with community needs for services and efficient and cost effective delivery of services and with due regard for the social and economic impacts of such facilities upon the areas surrounding the sites.”⁴¹⁵

The second provision, Section 204, requires the mayor to prepare an annual “citywide statement of needs” identifying all new facilities, expansions, reductions or closings that city agencies intend to propose in the next two fiscal years.⁴¹⁶ The statement must also specify the borough, and if possible, the community, in which the city proposes to site a new or expanded use, and must also specify the criteria to be used in selecting the site.⁴¹⁷ The mayor also must provide an “Atlas of City Property” revealing all existing city-owned property and its current use, as well as all state and federal social service land uses for which information is available to the city.⁴¹⁸ Borough presidents, community boards, and the public must be given notice and an opportunity to comment upon the statement of needs.⁴¹⁹ Additionally, a borough president may suggest alternative sites within the borough for uses proposed by the

⁴¹² N.Y. CITY CHARTER, §§ 203 and 204 (1989). For an overview of the new charter's land use provisions, see William Valletta, *Siting Public Facilities on a Fair Share Basis in New York City*, 25 URB. LAW. 1, 3-4 (1993); Barbara Weisberg, *One City's Approach to NIMBY*, 59 AM. PLAN. ASS'N J. 93 (1993); Edward N. Costikyan & Lesze U. Cornfeld, *New York City's New Charter: Land Use Regulations*, N.Y.L.J., Mar. 14, 1990, at 1.

⁴¹³ See Rose, *supra* note 274, at 97 (decrying the award).

⁴¹⁴ N.Y. CITY CHARTER, § 203(a) (1989).

⁴¹⁵ *Id.*

⁴¹⁶ *Id.* § 204(a).

⁴¹⁷ *Id.* § 204(b).

⁴¹⁸ *Id.* § 204(d).

⁴¹⁹ *Id.* § 204(f).

mayor.⁴²⁰ Section 204 also requires that all proposed sites conform to the fair share criteria promulgated under Section 203.⁴²¹

The fair share criteria adopted by the city planning commission⁴²² require that city agencies⁴²³ deciding where to site city facilities⁴²⁴ consider factors such as:

- a) the facility's compatibility with existing facilities and programs in the neighborhood;
- b) the extent to which the neighborhood's character will be adversely affected by a concentration of such facilities;
- c) the site's cost-effectiveness; and
- d) the site's consistency with the locational criteria that the mayor specified in his Statement of Needs.⁴²⁵

In addition, depending upon the specific kind of facility, the siting decisionmaker may be required to consider factors such as the need for the facility in the proposed community and the proximity of transportation and related social services.⁴²⁶

⁴²⁰ *Id.*

⁴²¹ *Id.* §§ 204(a), 204(e)(2), 204(f) and 204(g).

⁴²² For a more detailed overview of the fair share criteria, see Valletta, *supra* note 412, at 8-20; Stephen L. Kass & Michael B. Gerrard, "Fair Share" *Siting of City Facilities*, N.Y.L.J., June 21, 1990, at 3.

⁴²³ The criteria specify that if the proposed site must be approved by the city planning commission (CPC) under the City's Uniform Land Use Review Procedure (ULURP), the CPC must independently consider whether the proposed site meets the criteria. CITY PLANNING COMM'N, CRITERIA FOR THE LOCATION OF CITY FACILITIES art. 4.1(b), 6.1(b), 6.51, 6.53 (Dec. 3, 1990) [hereinafter CRITERIA]. Many uses will be subject to ULURP, which applies to all rezonings, special permits, capital projects, and leases or acquisition of land by the city. CITY PLANNING COMM'N UNIFORM LAND USE REVIEW PROCEDURE art. 2 (Sept. 1990). If the proposed use is not subject to ULURP, then the agency must submit statements to the mayor, the affected community boards and borough presidents, and the Department of City Planning, explaining the agency's consideration of the applicable criteria. CRITERIA, art. 9.1.

⁴²⁴ The criteria apply only to city facilities proposed by mayoral agencies, not to the siting of facilities by private entities, state or federal agencies, or independent agencies within the city. Such organizations will sometimes be indirectly governed by the fair share criteria, because the CPC must consider their compliance with the criteria if they should need the CPC's approval in order to site a use. CRITERIA, art. 3a & n.2. If they can site a use as of right under the City's zoning ordinance, or if, as in the case of some federal facilities, they are outside the reach of the zoning ordinance, then they will be unaffected by the criteria.

⁴²⁵ The criteria distinguish between local or neighborhood facilities (those serving just the community district in which the majority of their clients live and work) and regional or citywide facilities (those serving several community districts, an entire borough, or the entire city). CRITERIA, arts. 5, 6. The criteria provides an illustrative list of each type. Branch libraries, fire stations, and senior citizen centers are examples of local facilities. Sewage treatment plants, landfills, group homes, and jails are examples of regional facilities. CRITERIA, attachments A & B. For both local and regional facilities, the agency proposing the site is required to take into account the factors listed in the text.

⁴²⁶ For local facilities, the siting agency must consider:

- a) the need for the facility in the proposed community district; generally, the greater the need, the more appropriate the site;

The charter provisions and the implementing fair share criteria adopt a basic impact statement approach,⁴²⁷ requiring that neighborhoods receive and decisionmakers consider information about the distribution of benefits and burdens within the city. New York City's program reinforces the impact statement approach with several features borrowed from fair share approach.⁴²⁸ First, in establishing separate criteria for local or neighborhood facilities and regional or citywide facilities, the program recognizes the importance of defining "neighborhood."⁴²⁹ The plan's definitions of "neighborhood" for the two types of facilities are similar to the denomination of the appropriate allocation region in fair share plans.⁴³⁰ Second, the criteria recognize that a neighborhood's burden should be related to the needs the neighborhood generates,⁴³¹ similar to the way in which fair share plans consider a neighborhood's existing low and moderate income population.⁴³² Third, the plan includes special rules for the siting of residential facilities in neighborhoods that already have a high ratio of facility beds to population,⁴³³ similar to the rules imposed by dispersion requirements and to consideration of existing housing in fair share plans.⁴³⁴

b) the site's accessibility to those the facility is intended to serve.

CRITERIA, art. 5.1.

For regional or citywide facilities, the siting agency also must consider:

- a) the need for the facility;
- b) distribution of similar facilities throughout the city;
- c) the size of the facility, which should not exceed the minimum size necessary to meet existing and projected needs;
- d) adequacy of streets and transit facilities to handle traffic generated by the facility.

CRITERIA, art. 6.1.

Certain types of uses are subject to additional criteria. For example, for regional residential facilities, such as homeless shelters:

- a) undue concentration of facilities providing similar services or serving a similar population is to be avoided;
- b) necessary support services for the facility and its clients should be available nearby;
- c) if the site is proposed in a community with a high ratio of services to population, whether the facility could be sited on alternative sites in districts with lower ratios without adding significantly to the cost of constructing and operating the facility or impairing service delivery should be considered.

CRITERIA, art. 6.5.

⁴²⁷ See *supra* notes 376-88 and accompanying text.

⁴²⁸ See *supra* notes 394-97 and accompanying text.

⁴²⁹ See LISTOKIN, *supra* note 162, at 31-33. See also *supra* notes 172-75 and accompanying text.

⁴³⁰ See LISTOKIN, *supra* note 162, at 31-33.

⁴³¹ See CRITERIA, art. 5.

⁴³² See LISTOKIN, *supra* note 162, at 56-57.

⁴³³ CRITERIA, art. 6.5.

⁴³⁴ See LISTOKIN, *supra* note 162, at 51-58.

The city's program improves upon a few aspects of the impact statement model. It allows borough presidents to respond to the mayor's siting proposals with specific alternative sites⁴³⁵ and requires that those alternatives receive special consideration in some instances.⁴³⁶ The criteria provide for a "consensus building process" in which representatives of affected interests may convene to assess alternative sites.⁴³⁷ Further, while the program does not compensate the host community in the form of cash or amenities, it does specify that the borough president or community board may request the sponsoring agency to work with the community board to establish a site monitoring committee.⁴³⁸ Several studies of compensation schemes have indicated that communities consider local monitoring, or continuing impact review, a more important form of mitigation than compensation.⁴³⁹

The fair share criteria accordingly reflect both the treatment as equals⁴⁴⁰ and the equal division⁴⁴¹ theories of fairness, vividly highlighting the problems inherent in each theory. The criteria are plagued with the problems of definition and measurement attendant to the equal division theory.⁴⁴² Furthermore, they incorporate the added complexity of applying the proportional distribution theory to multiple LULUs. In comparing the burdens that facilities impose, for example, the criteria aggregate all facilities with sleeping accommodations under the heading of "residential facility."⁴⁴³ Consequently, prisons and drug treatment centers are considered no more burdensome than residential facilities for children and nursing homes,⁴⁴⁴ despite the fact that communities view those uses differently.⁴⁴⁵ To assess the extent of the saturation of such facilities, the criteria specify that the twenty community districts with the highest ratio of residential facility beds to population will be given special consideration.⁴⁴⁶ However, saturation would be more appropriately measured by the ratio of beds to subgroups of the population, such as recipients of certain government benefits, because many of the

435 N.Y. CITY CHARTER, at § 204(f).

436 CRITERIA, art. 6.53(c).

437 CRITERIA, art. 6.2.

438 CRITERIA, art. 6.3.

439 See PORTNEY, *supra* note 3, at 34-35.

440 See *supra* notes 337-44 and accompanying text.

441 See *supra* notes 137-57 and accompanying text.

442 See *supra* notes 165-200 and accompanying text.

443 CRITERIA, at art. 3(c) and attachment C.

444 *Id.*

445 See *supra* note 67.

446 CRITERIA, art. 6.53.

facilities draw their clients almost exclusively from these subgroups.⁴⁴⁷

The criteria fail to specify how distributional concerns are to be weighed against other concerns. Many of the factors listed as relevant to the siting decision will probably favor the siting of LULUs in already burdened neighborhoods. The cost-effectiveness of the site,⁴⁴⁸ for example, often will warrant siting the facility in low income and minority neighborhoods, where the price of land tends to be significantly cheaper and where the city already owns much land.⁴⁴⁹ Similarly, the "compatibility of the facility with existing facilities"⁴⁵⁰ and the "accessibility of the site to those it is intended to serve"⁴⁵¹ will point in the direction of siting many social service LULUs in the neighborhoods that already have many such LULUs. In the absence of any weighing scheme, those factors will quickly overwhelm considerations of fairness.

New York City's program also reveals that the theory of equal physical distribution⁴⁵² is difficult to implement on a local level because jurisdictional and political boundaries can wreak havoc on any attempt to ensure fair siting. Sitters may escape the mandates of the criteria by siting facilities outside the city's boundaries, as many social service agencies have done, and busing clients to the facility.⁴⁵³ Additionally, the criteria attempt to reach state and federal facilities by requiring the city to consider those facilities in making siting decisions,⁴⁵⁴ but state and federal siting decisions can quickly upset the fairness of a distribution.

Finally, the program reveals how the impact statement approach⁴⁵⁵ provides little assurance that decisionmakers consider data, rather than merely amass it. The criteria do not require that city agencies document how or whether they considered the data on impact, except when the agency's decision is not subject to the city's land use review process.⁴⁵⁶ Nor do the criteria require the planning

⁴⁴⁷ See CITIZENS HOUSING AND PLANNING COUNCIL, REPORT ON THE PROPOSED CRITERIA FOR THE LOCATION OF CITY FACILITIES (1990) (on file with author).

⁴⁴⁸ CRITERIA, at art. 4.1(c).

⁴⁴⁹ See *In re Silver*, N.Y.L.J., May 3, 1993, at 28-29 (Sup. Ct., N.Y. County) ("[A]lthough it generally will be more 'cost-effective' for the city to locate its facilities on city-owned property, . . . these are not proper considerations for the selection of a site under the fair share analysis. To allow respondents to rely on this reasoning in its rejection of alternative sites renders the fair share criteria illusory because it will dictate the outcome in the siting of all city facilities.").

⁴⁵⁰ CRITERIA, at art. 4.1(a).

⁴⁵¹ CRITERIA, at art. 5.1(b).

⁴⁵² See *supra* notes 149-51 and accompanying text.

⁴⁵³ See COMMISSION ON THE HOMELESS, *supra* note 274, at 101-02.

⁴⁵⁴ See *supra* note 424.

⁴⁵⁵ See *supra* notes 377-88 and accompanying text.

⁴⁵⁶ CRITERIA, art. 9.1.

commission to articulate why it believes that an agency adequately considered fairness issues.

The New York City fair share criteria are an innovative and thoughtful attempt to grapple with some of the problems posed by efforts to measure and compare the impact LULUs will have on different communities. While the criteria are far from an ideal solution to those problems, they illustrate that further work in this area is likely to make the equal division theory a more promising solution to the problem of disproportionate siting.

E. The Suspect Class Approach

The last major proposal to address discriminatory siting calls for special scrutiny of, or a presumption against, siting proposals that may have a disparate impact upon certain types of neighborhoods. For example, Rachel Godsil has proposed that Congress adopt legislation similar to Title VII of the Civil Rights Act of 1964⁴⁵⁷ that would provide a remedy to communities overburdened by hazardous waste facilities.⁴⁵⁸ Under Godsil's proposal, a minority community could make out a prima facie case of discriminatory siting by establishing that a proposed site would "result in a burden on their community greater than the burden on a white community due to the presence of other pollutants. . . ."⁴⁵⁹ The burden would then shift to the defendant to show that the chosen site was environmentally suitable.⁴⁶⁰ If the defendant met that burden, the plaintiff would then have to show that alternative sites existed that were also environmentally suitable.⁴⁶¹ The burden would then shift again, and the defendant would have to prove that the chosen site was "necessary" to safely dispose of hazardous wastes.⁴⁶²

Godsil's suspect class proposal reflects the narrow notion that fairness simply requires a lack of racial discrimination.⁴⁶³ The remedy would be unavailable to poor white communities targeted for LULUs.⁴⁶⁴ The remedy also would be unavailable to a minority

⁴⁵⁷ 42 U.S.C. § 1983 (1988).

⁴⁵⁸ Godsil, *supra* note 11.

⁴⁵⁹ *Id.* at 422 (emphasis in original).

⁴⁶⁰ *Id.* at 422-23.

⁴⁶¹ *Id.* at 423.

⁴⁶² *Id.*

⁴⁶³ Godsil's proposal seems to view disparate impact as evil even if unaccompanied by discriminatory intent. Her proposal therefore goes beyond the intentional discrimination theory outlined *supra* notes 323-36 and accompanying text. As discussed *supra* note 324, if disparate impact is unaccompanied by discriminatory intent it must be independently justified as a theory of fairness. Godsil does not offer a justification, other than the practical difficulties of proving discriminatory intent.

⁴⁶⁴ For a critique of Godsil's proposal from a leader in the environmental racism movement, see Cole, *supra* note 295.

community until that community had borne an equal share of the burden. For example, if both a white and a minority community were equally well suited for a facility, but neither was plagued with pollution, the decision to place the facility in the minority community would be unassailable as long as decision-makers did not reveal any intent to discriminate against that community on the basis of race.

Godsil's proposal attempts to answer questions about how to balance fairness concerns against other issues like safety by providing that safety would outweigh fairness if the siter could show that the minority community was the only safe disposal site.⁴⁶⁵ But to require that siters prove that no safer site exists is a high burden. Even if siting officials could satisfy the burden, safety is a matter of degree. It seems odd that a one percent improvement in safety can trump, for example, a 100 percent decrease in fairness. Safety is also a function of cost. If, for example, land and operating costs in the minority community are significantly lower, but all other factors are equal, the same amount of money may buy greater safety in the site in the minority community.

While Godsil's proposal addresses the difficulty that minority communities have in establishing a violation of the Equal Protection Clause⁴⁶⁶ because of the intent requirement of *Arlington Heights*,⁴⁶⁷ it aims too low by embracing a limited vision of fairness and does not address the hard issues raised by even that limited notion.

The "Environmental Equal Rights Act of 1993," introduced by Congresswoman Cardiss Collins (D-Ill.), is another version of the suspect class approach.⁴⁶⁸ The draft requires licensing officials to disapprove solid or hazardous waste facilities in "environmentally disadvantaged" communities if the facility threatens the community's health or environmental quality.⁴⁶⁹ An exception exists if there is no alternative location that poses fewer risks and if the proposed facility will not release contaminants or increase the cumulative impact of contaminants on the community.⁴⁷⁰ "Environmentally disadvantaged" communities are defined by the proposed legislation as those in which either the percentage of the minority population is greater than that of the state or nation, the percentage of the population living below the poverty line is at least twenty percent, or the per capita income is eighty percent or less of the na-

465 Godsil, *supra* note 11, at 424.

466 U.S. CONST., amend. XIV, § 1.

467 See *supra* notes 10-11 and accompanying text.

468 H.R. 1924, 103d Cong., 1st Sess (1993).

469 *Id.* § 3.

470 *Id.*

tional average.⁴⁷¹ Additionally, to be "environmentally disadvantaged," the community must contain a hazardous waste facility, a municipal solid waste facility, a site at which a release or threatened release of hazardous substances has occurred, or a facility subject to federal toxic chemical release reporting requirements.⁴⁷²

The Collins proposal seems to reflect a notion that siting should be progressive to make up for past discrimination against poor and minority neighborhoods.⁴⁷³ Like dispersion statutes,⁴⁷⁴ it provides relief only for those neighborhoods that already have borne some burden, and does not concern itself with the fairness of siting generally. But it is narrower than the dispersion approach because it is concerned with already burdened neighborhoods only if they are poor or minority communities. The draft therefore seems to adopt the corrective justice prong⁴⁷⁵ of the progressive siting theory.

The bill shares many of the practical problems of the dispersion approach.⁴⁷⁶ The draft defines "neighborhood" as the two-mile radius around the proposed facility, but does not explain why that is the appropriate definition, nor does it vary the definition with the type of facility proposed. The draft ignores a neighborhood's existing burdens if they do not relate to hazardous or municipal solid waste. It allows the presumption against siting in an environmentally disadvantaged area to be overcome by a showing that no less risky alternatives exist, but it does not address how concerns such as cost are to be weighed in the identification of alternative sites.⁴⁷⁷ Additionally, by limiting the remedy to poor and minority communities, the draft implicitly presumes that those communities were selected as hosts in the past because of racial or class-based prejudice, a causal claim that the existing evidence does not support.⁴⁷⁸

CONCLUSION

Those who hope for genuine change in the way LULUs are distributed among neighborhoods should be wary of abstract calls for fair siting. As this article has demonstrated, unless the notion of fair

⁴⁷¹ *Id.* at § 3(D)(1)(A).

⁴⁷² *Id.* at § 3(D)(1)(B).

⁴⁷³ *See supra* notes 277-48 and accompanying text.

⁴⁷⁴ *See supra* note 369 and accompanying text.

⁴⁷⁵ *See supra* note 248 and accompanying text.

⁴⁷⁶ *See supra* notes 165-98 and accompanying text.

⁴⁷⁷ Oddly, the bill allows the presumption against siting to be overcome by a showing that no less risky alternative exists, even if equally risky alternatives do exist. *See* H.R. 1924, 103d Cong., 1st Sess. § 3 (1993).

⁴⁷⁸ *See supra* notes 81-91 and accompanying text.

siting is tied to a specific theory of fairness, it is impossible to determine what fair siting will look like in practice or to determine how effective proposals to ensure fair siting will be. It obviously is easier to be abstract. Concreteness only leads to problem after problem after problem. What good does it do to know all of those problems? Law review articles are supposed to solve problems, after all, not raise them in scores.

But hard looks at seemingly incontestible concepts lead to better solutions than even the most enthusiastic agreement with vacuous slogans. This Article seeks to foster better analysis of disproportionate siting by taking that hard look. It suggests answers to the most potent general objections to fair siting proposals. It points the direction for future research that would shore up weaknesses in the evidence that LULUs are disproportionately sited. It articulates the most promising theories that can be used to support calls for fair siting. Finally, the Article details the nature of the beast that proponents of fair siting must confront in order to translate a theory of fair siting into a practical and effective siting program. Knowing the problems should bring us at least one step closer to the solutions.