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Planners Gone Wild: The Overregulation of Parking

Michael E Lewyn, *Florida Coastal School of Law*
Shane Cralle

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*613 PLANNERS GONE WILD: THE OVERREGULATION OF PARKING

The High Cost of Free Parking. By Donald C. Shoup. Planners Press, 2005. 752 pages. \$59.95.

Michael Lewyn [FNd1]
Shane Cralle [FNdd1]

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I. INTRODUCTION

Ever since the 1940s, most American cities have required landowners to provide customers, visitors, and guests with free off-street parking. [FN1] Courts have generally upheld these requirements against constitutional challenges. [FN2] In *The High Cost of Free Parking*, Donald Shoup asserts that off-street parking requirements make cities more automobile-dependent, subsidize driving, make housing less affordable, and discourage redevelopment of older buildings. Part II of this review addresses Shoup's critique of the status quo, while Part III discusses his rebuttals to possible defenses of current regulations.

*614 II. The Status Quo And Its Consequences

According to the American Planning Association, [FN3] cities require parking for at least 662 different land uses. [FN4] For example, most cities require office buildings to provide visitors and employees with four parking spaces per 1000 square feet. [FN5] Because four parking spaces generally occupy at least 1200 square feet, [FN6] commercial landowners must often provide more space for parking than for offices. Similarly, cities often require large amounts of parking for shopping centers and other commercial uses. [FN7]

Parking requirements for residential housing are equally rigid. For example, the city code of Houston, Texas requires landowners to provide 1.25 parking spaces for every studio apartment and 1.33 parking spaces for every one-bedroom apartment--even though seventeen percent of Houston's renters do not have even one car in their households. [FN8]

At first glance, government-mandated parking lots surrounding offices, shops and apartments may seem like a costless convenience for drivers. But Shoup points out that minimum parking requirements create a variety of social costs that may exceed this benefit.

A. Degraded Urban Form

As a result of minimum parking requirements, landowners typically surround offices, shops and apartments with parking lots, thus creating a "strip mall" effect. [FN9] Government-mandated strip *615 malls create a sprawling, automobile-dependent urban form, by surrounding streets with a sea of parking. An Environmental Protection Agency report states that where buildings are

set back behind yards of parking rather than being "flush with the sidewalk," [FN10] a pedestrian "has less to look at [and] feels more isolated." [FN11] By contrast, "small setbacks and shopfront windows provide more interesting scenery for pedestrians and create a feeling of connection between the buildings and the public spaces bordering them." [FN12] Moreover, parking lots in front of buildings lengthen pedestrians' commutes by increasing the distance between streets and destinations such as offices and shops. [FN13] Where parking is in front of a shop or office, pedestrians cannot approach their destination without trudging through a parking lot, dodging cars with every step. [FN14]

B. More Parking = Lower Density = Increased Automobile Dependence

Minimum parking requirements artificially disperse population because land devoted to parking cannot be used for housing or businesses. For example, in 1961, Oakland, California began to require one parking space per dwelling unit for apartment buildings. [FN15] Within just three years, the number of apartments per acre fell by thirty percent. [FN16] The effects of parking *616 upon job density are even more extreme: more than half of downtown Buffalo, for example, is devoted to parking. [FN17]

Such government-created low-density areas effectively force Americans into their cars for two reasons. First, if each apartment, shop, or office consumes large amounts of land, fewer of these destinations can be placed within a short walk of each other. [FN18] Thus, anti-density parking regulations reduce the number of people who can walk to errands or jobs.

Second, in low-density areas, very few people will live within walking distance of a bus or train stop, which in turn means that very few people can conveniently use a bus or train. [FN19] By contrast, more compact neighborhoods increase transportation choices because more people in an area means more potential riders within a short walking distance of a bus or train stop.

C. Subsidized Driving

While roads are at least partially paid for by user fees, [FN20] parking is nearly always "free" to its users. [FN21] But, such "free" parking is in fact paid for by landowners, who build parking lots and pass the costs of those parking lots on to society as a whole in the form of higher rents, and by their tenants, who (if they are businesses) then pass the costs on to society as a whole in the form of higher prices for goods and services. [FN22] Thus, minimum parking requirements are *617 essentially a sort of tax that redistributes money from society as a whole to drivers (or, phrased another way, from Americans in their roles as workers and business owners to their roles as drivers). [FN23]

How large is this tax? According to one 2002 study cited by Shoup, the cost of an average parking space is about \$127 per month. [FN24] Assuming that a commuter drives to work twenty-two days each month, that commuter receives a parking subsidy of \$5.77 per day to park free (\$127/22). [FN25] Given that the same commuter spends far less than \$5.77 to drive to work, [FN26] government-mandated free parking gives drivers more of a subsidy than would government-mandated free gasoline.

The same study estimates that the total social cost of free off-street parking is between \$127 and \$374 billion [FN27]--as much as the federal government spent on national defense (\$349 billion) or Medicare (\$231 billion) at the time of the study. [FN28] Given that a one cent per gallon gasoline tax increase would increase gasoline tax revenues by \$1 billion per year, it would take an increase of as much as \$3.74 in the gasoline tax to offset the social cost of off-street parking.

[FN29]

In sum, government-mandated free parking provides a huge subsidy to drivers, which means that government-mandated free *618 parking increases driving, just as government-provided "free" pizza would increase the number of Americans eating pizza. [FN30]

Thanks to the parking subsidy, more Americans drive to work, which in turn means that fewer people use public transit than would otherwise be the case, which means that public transit agencies have less revenue, which means that those transit agencies must raise fares or provide less service, which means that even fewer people ride public transit. [FN31] And when more Americans drive, there is of course more demand for parking--which means that minimum parking requirements, by encouraging driving, may actually create parking shortages.

D. Increased Housing Costs

Minimum parking requirements reduce the true cost of car ownership by shifting the cost of parking into the cost of dwelling units, resulting in the subsidization of drivers by renters. [FN32] Shoup asserts that minimum parking requirements may add as much as thirty-eight percent to the cost of developing apartments. [FN33] Consequently, municipal efforts to ease parking problems may exacerbate housing affordability problems.

E. Bad for Business

Off-street parking requirements restrict the redevelopment of older buildings, thereby discouraging infill development and *619 forcing potential businesses out of established areas. [FN34] Suppose, for instance, that a barbershop closes in a city which requires two parking spaces per barber, and that a beautician who hopes to open a beauty shop in the same location must, under city parking regulations, create three parking spaces per beautician. Unless the beautician can obtain a zoning variance, [FN35] she must either: (1) provide more parking spaces, or (2) move to another building with more parking space. If the beautician's shop is surrounded by other buildings, provision of additional parking may be impractical, [FN36] so the beautician must move to another building with more space and allow the existing building to stay vacant unless another barber can be found for that location. [FN37] Thus, minimum parking requirements can discourage redevelopment of existing buildings.

This restriction on building redevelopment becomes particularly harsh and further stunts economic growth if a city increases its off-street parking requirements over time. [FN38] Existing buildings that do not conform to the new parking requirements generally receive "grandfathered" rights to continue business under the previous parking regulation. [FN39] But any change in building use triggers application of the new parking requirements, forcing nonconforming buildings to supply additional parking when redeveloped. [FN40]

F. Parking and the Poor

Twenty-seven percent of households earning less than \$20,000 a year do not own a car, while ninety-nine percent of households with incomes greater than \$75,000 own at least one car. [FN41] Nevertheless, these lower-income families, which are far more likely *620 to rely on public transportation, [FN42] still finance "free" parking through increased prices for goods, services, and rent. [FN43] So by redistributing income from drivers to nondrivers, [FN44] minimum parking requirements redistribute income from the (disproportionately carless) poor to the relatively affluent majority.

III. Is There An Alternative?

The most obvious solution to the negative side effects of parking regulation might be the complete elimination of parking regulation: just allow the free market to decide who can park where. But cities have traditionally rejected this remedy out of concerns that drivers unable to find parking spaces would congest the streets in search of parking. For example, the Colorado Supreme Court upheld one city's minimum parking requirements on the ground that such regulations were a rational means of preventing drivers from "moving slowly around block from block seeking a place to park . . . clog[ging] the streets, air and ears of our citizens." [FN45] Shoup rejects this argument on the grounds that: (1) most cities require far more parking than is actually necessary to prevent parking shortages, and (2) less damaging alternatives could prevent such "cruising."

A. Why Minimum Parking Regulations are Overbroad

In addition to attacking minimum parking requirements in principle, Shoup asserts that cities generally require landowners to provide more parking than drivers actually use. Planners generally base parking decisions not upon consumers' willingness to pay, but rather on the collective hunches of nearby cities, [FN46] which in turn are often based on Institute for Transportation Engineers (ITE) parking data. [FN47] ITE engineers survey parking occupancy at various land uses, and create a *621 "parking generation" rate that measures the number of drivers who park at various types of enterprises. [FN48] ITE data are flawed in two respects. First, ITE data are based on data from sites with ample free parking and no public transit. [FN49] Thus, planners who rely on ITE data create a self-fulfilling prophecy: they set parking requirements based on data from automobile-dependent places, which ensures that cities enact stringent minimum parking requirements, which in turn helps to create the automobile-dependent places upon which ITE data are based. [FN50] Second, ITE data are based upon parking during peak periods, and thus dramatically overestimate day-to-day parking demand, [FN51] leading to government-mandated parking lots that are often more than half empty. [FN52]

B. Cruising: A Curable Problem?

As noted above, one common justification for minimum parking requirements is that by making it easy for drivers to use off-street parking lots, such rules reduce the pollution and congestion commonly associated with "cruising" for on-street parking by drivers. [FN53] Intuitively, consumers prefer unpriced parking to pay parking and while cruising for free parking is economically rational for the individual, it collectively harms society because it clogs traffic, wastes fuel, and causes air pollution. [FN54] Shoup proposes two reforms to reduce cruising: (1) allowing landowners to avoid minimum parking requirements by paying "in lieu of parking" fees, [FN55] and (2) setting market prices for on-street parking. [FN56]

*622 1. In-Lieu Fees

Some cities allow developers to avoid minimum parking requirements by paying "in-lieu of parking" fees. With in-lieu fees, developers pay a fee to fund public parking facilities instead of providing parking themselves for customers, visitors, and employees. [FN57] Shoup prefers public parking to the status quo on the following grounds:

- private facilities whose peak parking occurs at different times (such as an office building commonly used during the day and a restaurant commonly used at night) can share public parking, meaning that fewer parking spaces are required to meet peak demand; [FN58]

- customers can park once and walk to multiple sites, reducing vehicle traffic; [FN59]
- older buildings may be redeveloped for a new use without having to provide additional parking; [FN60]
- fewer buildings will be surrounded by parking lots, as scattered parking spaces can be consolidated. [FN61]

But in-lieu fees are not a perfect solution to the cruising problem. Cities still tax landowners who pay such fees to subsidize parking and thus subsidize additional driving. [FN62]

2. Institute Fair Market Pricing

Ideally, Shoup would deter cruising by shifting to "fair market pricing" for on-street parking. Today, on-street parking is generally cheap or free, but is regulated through government-imposed time limits on parking. [FN63] This system encourages cruising, because *623 cheap parking encourages people to drive to their destinations and then to cruise around an area searching for available free parking spaces. [FN64] Moreover, a driver who needs to park for more than the maximum time will have to waste time moving a car to another space, thus clogging traffic. [FN65]

In contrast, Shoup suggests that cities eliminate time limits for parking and instead charge a price that will deter just enough driving to eliminate parking shortages. Specifically, he suggests that at any given time, prices should be just low enough (or high enough) so that about fifteen percent of curb spaces should remain vacant, and the rest should be occupied. [FN66] After a city sets a price for parking in a certain location, it would periodically review prices to determine whether they produce the target occupancy rate; if the rates are too low, prices could be raised, while if the rates are too high, prices could be lowered. [FN67]

Shifting to market pricing for parking allocates parking spaces in a fairer and more efficient manner than the current system. Increasing the price of parking to reflect consumer demand eliminates the indirect subsidy that all consumers, even those who do not own a personal vehicle, pay to all drivers. [FN68] Instead, market pricing allocates parking spots to drivers who most desire them, because drivers who want spaces the most will pay the most. [FN69] The most convenient parking spaces will be predominately used for relatively expensive short-term parking, and less convenient parking will typically be occupied by long-term parkers and by those who place a low value on time. [FN70]

By eliminating parking shortages, market pricing will make it more politically feasible for cities to eliminate off-street parking requirements. [FN71] Businesses and employers can then decide whether *624 to subsidize parking for customers and employees; the choice will be theirs, instead of one made by a city planner. [FN72] Businesses may prefer to lose a few customers on busy days rather than pay for parking that ordinarily remains empty, allowing these empty spaces to be put to more productive use. [FN73]

It could be argued that market pricing of parking is just another tax, and is thus politically infeasible. Shoup responds that unlike many taxes, parking fees discourage a socially noxious activity (cruising). [FN74] Moreover, market-priced curb parking could be politically acceptable if parking meter revenue was used to benefit the areas with the parking meters. Specifically, Shoup suggests that revenue from market-priced curb parking be given not to a city's general treasury, but to neighborhood business improvement districts (BIDs) (that is, neighborhood associations in commercial districts), [FN75] who will use the revenue for neighborhood improvements that make these areas cleaner and safer. [FN76] If parking revenue funds are given to BIDs, BID members will be willing to support charging market prices for curb parking.

[FN77] Similarly, in residential areas, cities can create "parking benefit districts" in which residents will be given the right to park free in a district, while nonresidents will have to pay market price, and the resulting revenue will be earmarked for neighborhood improvements.

[FN78]

A more significant concern is that if market prices in one area (e.g. downtowns, which tend to be more compact and less parking-dominated than suburbs) [FN79] are higher than the market price in *625 areas with a glut of off-street parking (e.g. suburban shopping centers), drivers may be deterred from visiting the former areas. Shoup responds by citing some success stories involving somewhat similar systems; for example, in Pasadena, California, and San Diego, California, cities substituted parking meters for free parking in order to finance neighborhood improvements such as street trees and street furniture, thus causing the revival of depressed business districts. [FN80] But Pasadena and San Diego are growing cities, [FN81] so neighborhoods in those cities might be reasonably likely to improve regardless of parking policy. By contrast, it is not clear whether similar policies would be effective in downtowns of declining cities: in more marginal areas where citywide consumer demand is weaker, charging for parking might deter more visitors than are now deterred by parking shortages. [FN82]

A related concern is that market pricing might be too successful, creating upper-class districts where parking is so expensive as to exclude low-income drivers. [FN83] In the absence of further experimentation, there is no way of knowing whether such "exclusionary parking" will be a significant problem.

IV. Conclusion

Regardless of the wisdom of in-lieu parking fees or market prices for on-street parking, Shoup persuasively argues that minimum parking requirements create a cavalcade of unintended harmful consequences, such as less pedestrian-friendly streets, *626 higher rents, and higher prices for other goods and services. As Shoup suggests, American cities should treat a restaurant's parking spaces the way we treat a restaurant itself: "Planners don't say how many restaurants a city must have. We let the market provide as many restaurants as people are willing to pay for. Similarly, planners should let developers provide as many off-street parking spaces as drivers are willing to pay for." [FN84]

Even if a free market in off-street parking might increase cruising, there is no reason to believe that this problem outweighs the negative consequences of existing regulations. So when in doubt, we should give the free market a try.

[FNd1]. Assistant Professor, Florida Coastal School of Law. B.A., Wesleyan University; J.D., University of Pennsylvania Law School.

[FNdd1]. Law Clerk, Judge Robert Chambers, U.S. District Court for the Southern District of West Virginia. B.A., University of Virginia; J.D., George Washington University Law School.

[FN1]. See Donald C. Shoup, *The High Cost of Free Parking* 22, 25 (2005) (noting that in 1946, only seventeen percent of a sample of cities surveyed had parking requirements, while by 1951, seventy-one percent of cities had parking requirements or were in the process of adopting them; today, off-street parking requirements are so common as to be one of "three basic sets of regulations" that are virtually universal). Shoup notes that "parking is free for ninety-nine percent

of all automobile trips in the U.S." *Id.* at 1. In fact, some cities explicitly require that off-street parking provided by landowners be free. *Id.* at 24.

[FN2]. See, e.g., *Cent. Bank & Trust Co. v. City of Miami Beach*, 392 F.2d 549, 550-51 (5th Cir. 1968); *Stroud v. City of Aspen*, 532 P.2d 720 (Colo. 1975).

[FN3]. See Michael Lewyn, *Twenty-First Century Planning and the Constitution*, 74 U. Colo. L. Rev. 651, 651 (2003) (describing the APA as a national organization of land-use planners).

[FN4]. See Shoup, *supra* note 1, at 76.

[FN5]. *Id.* at 31.

[FN6]. *Id.*

[FN7]. See Michael Lewyn, *How Overregulation Creates Sprawl (Even In a City Without Zoning)*, 50 Wayne L. Rev. 1171, 1183 (2005) (describing a variety of parking rules under the Houston, Texas city code).

[FN8]. *Id.*

[FN9]. *Id.* at 1183 n.82. In Houston, "most shopping centers and restaurants are designed with parking out front, creating a strip mall effect." *Id.* Parking lots are generally in front of buildings because of the combination of minimum parking requirements and city ordinances requiring buildings to be set back from the street. *Id.* The "strip mall effect" exists partially because Houston requires commercial buildings to be twenty-five feet from the street or sidewalk. *Id.* See also James Howard Kunstler, *Home from Nowhere* 138 (1996) (noting that setback laws generally "keep buildings far away from the street in order to create parking lots all around the building"). If a landowner has to place something in front of a building, she might as well install a parking lot that customers can use, rather than installing something merely decorative such as landscaping--and as long as the landowner has to install a parking lot, she might as well place the lot in front of her property where motorists can easily see it. See Shoup, *supra* note 1, at 107 (noting that parking in front of buildings is more convenient for motorists than rear parking).

[FN10]. Reid Ewing, Smart Growth Network, *Pedestrian- and Transit-Friendly Design: A Primer for Smart Growth* 10, http://www.epa.gov/smartgrowth/pdf/ptfd_primer.pdf.

[FN11]. *Id.*

[FN12]. Douglas G. French, *Cities Without Soul: Standards for Architectural Controls with Growth Management Objectives*, 71 U. Det. Mercy L. Rev. 267, 280 (1994).

[FN13]. See Robert H. Freilich, *The Land Use Implications of Transit-Oriented Development: Controlling the Demand Side of Transportation Congestion and Urban Sprawl*, 30 Urb. Law. 547, 557 (1998) ("[L]arge expanses of asphalt devoted to parking often discourage pedestrian

mobility" and make public transit inconvenient by impeding walking to and from transit stations).

[FN14]. See Gregory Smith, *Two Buildings Face Wrecking Ball for More Parking Space*, Providence J. (Rhode Island), Nov. 4, 2002, at B1 (parking lots "force pedestrians to dodge vehicles crossing the sidewalk").

[FN15]. Shoup, *supra* note 1, at 143.

[FN16]. *Id.* at 144.

[FN17]. *Id.* at 130-31 (also citing other examples of parking-dominated downtowns).

[FN18]. Cf. Andres Duany & Emily Talen, *Making the Good Easy: The Smart Code Alternative*, 29 *Fordham Urb. L.J.* 1445, 1447 (2002) (by contrast, in a neighborhood organized around the "mobility pattern of the pedestrian," most residents should live no more than a quarter of a mile from stores and schools).

[FN19]. See Freilich, *supra* note 13, at 552 n.18 ("[I]n order to effectively encourage transit utilization, a development must be located so that residents are not required to walk a distance of greater than a quarter mile to a transit station" otherwise "commuters are required to travel too far to transit stations."); see also Ewing, *supra* note 10, at 5-6.

[FN20]. See Salvatore Massa, *Surface Freight Transportation: Accounting for Subsidies in a "Free Market"*, 4 *N.Y.U. J. Legis. & Pub. Pol'y* 285, 318 (2000-01) (noting that over half of state and federal highway spending is paid for by user fees).

[FN21]. See Shoup, *supra* note 1, at 1 (explaining that ninety-nine percent of American auto trips involve free parking).

[FN22]. Shoup explains that:

Initially the developer pays for the required parking, but soon the tenants do, and then their customers, and so on, until the cost of parking has diffused everywhere in the economy. When we shop in a store, eat in a restaurant, or see a movie, we pay for parking indirectly because its cost is included in the price of merchandise, meals and theater tickets. We unknowingly support our cars with almost every commercial transaction we make because a small share of the money changing hands pays for parking.

Id. at 2.

[FN23]. *Id.* ("We don't pay for parking in our roles as motorists, but in all our other roles--as consumers, investors, workers, residents and taxpayers--we pay a high price. Even people who don't own a car have to pay for 'free' parking.").

[FN24]. *Id.* at 185-91 (explaining the logic behind the estimate). Shoup notes that many commercial spaces cost even more (perhaps \$141 to \$200 per month). *Id.* at 192.

[FN25]. *Id.* at 212.

[FN26]. In 2001, the average American commuter had a twenty-six-mile round trip commute and a car using twenty miles per gallon, and thus used up 1.3 gallons of fuel per day. *Id.* at 213 (noting that these are average commute and mileage lengths in the United States). Although gas prices fluctuate, as of the date of this writing (January 2007) gas prices are about \$2.00-2.50 per gallon (with a nationwide average of \$2.23 per gallon), so the hypothetical commuter cited above would pay approximately \$2.60-3.25 per day. See GasBuddy, <http://www.gasbuddy.com> (last visited January 15, 2007).

[FN27]. See Shoup, *supra* note 1, at 205-07 (explaining the basis for this conclusion).

[FN28]. *Id.* at 207.

[FN29]. *Id.* at 207-08.

[FN30]. See Andres Duany et al., *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream* 94 (2000) ("Of course there's never enough parking! If you gave everyone free pizza, would there be enough pizza?").

[FN31]. See *Fitchik v. N.J. Transit Rail Operations*, 873 F.2d 655, 665 (3d Cir. 1989) (Rosenn, J., dissenting) ("[I]ncreases in fares or reductions in the quality or availability of service have the tendency of reducing ridership, and the reduction in ridership in turn diminishes revenue."); Editorial, *To Bus or Not to Bus*, *Providence J. (Rhode Island)*, Oct. 18, 2004, at A8 (noting that cuts in bus service could "cause ridership to fall, deficits to swell and the 'death spiral' to become ever more costly to stop").

[FN32]. See Shoup, *supra* note 1, at 141.

[FN33]. *Id.* at 148-51 (noting that parking spaces required by the city of Los Angeles increased construction costs of the Weyburn Terrace apartment project by thirty-two percent and requirements by Palo Alto increased development costs of Alma Place, a federal low-income housing system, by thirty-eight percent). But cf. Todd Litman, *Victoria Transport Policy Institute, Parking Requirement Impacts on Housing Affordability* 1 (2005), available at <http://www.vtpi.org/park-hour.pdf> ("[O]ne parking space per unit increases costs by about 12.5%, and two parking spaces increase costs by about 25%.")

[FN34]. Shoup, *supra* note 1, at 153-54.

[FN35]. *Id.* at 153 (noting that variances are difficult to obtain due to cost and a time consuming process).

[FN36]. See *id.* at 98, 153-54.

[FN37]. *Id.* at 153-54.

[FN38]. See *id.* at 97-98.

[FN39]. See, e.g., *Gladden v. D.C. Bd. of Zoning Adjustment*, 659 A.2d 249, 253-54 (D.C. 1995).

[FN40]. See, e.g., *Page Assocs. v. District of Columbia*, 463 A.2d 649, 651 (D.C. 1983) (explaining that Washington, D.C. zoning regulations require any building grandfathered from parking requirements to provide additional spaces when the building use is changed).

[FN41]. Shoup, *supra* note 1, at 165.

[FN42]. Nat'l CENTER FOR TRANSIT RESEARCH, PUBLIC TRANSIT IN AMERICA: RESULTS FROM THE 2001 NATIONAL HOUSEHOLD TRAVEL SURVEY 37-43, 48 (2005), <http://www.nctr.usf.edu/pdf/527-09.pdf>.

[FN43]. SHOUP, *supra* note 1, at 165.

[FN44]. See *supra* Part I.C.

[FN45]. *City of Aspen v. Stroud*, 532 P.2d 720, 723 (Colo. 1975).

[FN46]. See Shoup, *supra* note 1, at 26 (forty-five percent of planners surveyed nearby cities to decide how much parking to require for various land uses).

[FN47]. *Id.* (identifying ITE data as the second-most popular source of parking rules).

[FN48]. *Id.* at 31-32.

[FN49]. *Id.* at 32.

[FN50]. See *supra* Parts I.A-C (explaining how minimum parking requirements spur automobile dependence).

[FN51]. Jeffrey Tumlin & Adam Millard-Bell, *The Mythology of Parking*, *Line Mag.* (Mar. 2004), http://www.linemag.org/_line/article_template1_print.php?a_id=146 (last visited Feb. 22, 2007).

[FN52]. SHOUP, *supra* note 1, at 81 (citing various studies supporting this proposition). In particular, Shoup cites an Urban Land Institute study showing that even during the busiest hour of the year, almost half of shopping center parking lots were never more than eighty-five percent filled. *Id.*

[FN53]. See *supra* note 45 and accompanying text. A related concern is "spillover parking"--the use of parking spaces in residential areas by visitors to neighboring businesses, thus depriving residents of parking spaces. See Shoup, *supra* note 1, at 433 (describing this problem); see also

infra note 84 and accompanying text (explaining how Shoup would reduce spillover parking by using market pricing).

[FN54]. See Shoup, *supra* note 1, at 276.

[FN55]. *Id.* at 229.

[FN56]. *Id.* at 297.

[FN57]. *Id.* at 229. See also *id.* at 251-62, 266-67 (suggesting related alternatives of allowing employers to avoid minimum parking requirements if they paid for employees' transit usage, and allowing landlords to avoid minimum parking requirements by subsidizing use of "car sharing" services by carless tenants); see generally Zipcar, <http://www.zipcar.com> (last visited Feb. 22, 2007) (web page of car sharing service, explaining concept).

[FN58]. See Shoup, *supra* note 1, at 231.

[FN59]. *Id.*

[FN60]. *Id.*

[FN61]. *Id.*

[FN62]. See Part II.C. (arguing that as long as parking is free, drivers are subsidized by landowners). Shoup also questions whether cities will build parking spaces as cheaply and efficiently as individual developers. See Shoup, *supra* note 1, at 232.

[FN63]. See Shoup, *supra* note 1, at 296.

[FN64]. *Id.* at 303.

[FN65]. See *id.* at 296-97. Moreover, time limits are difficult to enforce. Shoup cites a study in Seattle showing that the average parking duration in spaces with a one-hour time limit is over two hours. *Id.* at 297.

[FN66]. *Id.* at 297-99. Shoup suggests a "fifteen percent rule" because traffic engineers typically recommend a fifteen percent vacancy rate in order to ensure adequate ingress and egress from parking spaces. *Id.* at 297, 316 n.6 (citing numerous commentators).

[FN67]. *Id.* at 300-03 (describing technical details).

[FN68]. *Id.* at 165.

[FN69]. *Id.* at 398-99.

[FN70]. *Id.* at 483.

[FN71]. *Id.* at 495-96. See *supra* note 45 and accompanying text (noting that prevention of cruising is one justification for minimum parking requirements).

[FN72]. Shoup, *supra* note 1, at 497.

[FN73]. *Id.* at 91.

[FN74]. *Id.* at 291.

[FN75]. *Id.* at 401.

[FN76]. *Id.* In BIDs, property owners voluntarily assess themselves to pay for "local public services that cities either do not provide (such as sidewalk cleaning) or do not provide at a satisfactory level (such as security) ... because they recognize that their property's value depends on the quality of the surrounding environment." *Id.*

[FN77]. *Id.* at 401-02.

[FN78]. *Id.* at 434-37. A more common system is a residential parking permit ordinance which flatly prohibits nonresidents from parking in residential neighborhoods. See, e.g., *County Bd. of Arlington County, Va. v. Richards*, 434 U.S. 5 (1977) (upholding such a law). Shoup faults such prohibitions as an "overreaction" because they leave many parking spaces vacant and thus underused. See Shoup, *supra* note 1, at 433-34 (describing and criticizing such regulations).

[FN79]. Shoup, *supra* note 1, at 158-59 (noting that parking lots are more expensive to build in dense downtown areas).

[FN80]. *Id.* at 403-18 (describing improvements in downtown Pasadena); 418-27 (describing improvements in various parts of San Diego). But neither city has the kind of block-by-block market pricing system recommended by Shoup. Pasadena charges the "unusually high" rate of \$1 per hour for downtown meters and allows businesses to avoid off-street parking requirements by paying only \$115 per year to the city. *Id.* at 406, 408. But it apparently does not charge different rates for different locations or seek to figure out a market price. Similarly, San Diego sets a single price (\$1.25 per hour) for all parking meters in the city. *Id.* at 425.

[FN81]. See U.S. Census Bureau, U.S. Dep't of Commerce, *Statistical Abstract of the United States: 2006*, at 34-35 (Pasadena's population increased from 118,000 to 144,000 between 1980 and 2004, while San Diego's increased from 876,000 to 1.2 million).

[FN82]. Shoup suggests that fewer shoppers would be deterred by more expensive parking than by the parking shortages caused by underpriced curb parking. See Shoup, *supra* note 1, at 398. This argument depends on the assumption that even in the most depressed areas, parking shortages are so common that they are more of a deterrent than market-priced parking an

assumption that may not be true for all neighborhoods.

[FN83]. I thank Elizabeth DeCoux for this insight.

[FN84]. See Shoup, *supra* note 1, at 496.