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# Introduction

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*He told the truth, mainly.  
There was things which he stretched,  
but mainly he told the truth.*

MARK TWAIN, *HUCKLEBERRY FINN*

At the dawn of the automobile age, suppose Henry Ford and John D. Rockefeller had asked how city planners could increase the demand for cars and gasoline. Consider three options. First, divide the city into separate zones (housing here, jobs there, shopping somewhere else) to create travel between the zones. Second, limit density to spread everything apart and further increase travel. Third, require ample off-street parking everywhere so cars will be the default way to travel.

U.S. cities have unwisely adopted these three car-friendly policies. Separated land uses, low density, and ample free parking create drivable cities but prevent walkable neighborhoods. Although city planners did not intend to enrich the automobile and oil industries, their plans have shaped our cities to suit our cars. Cars themselves have also reshaped our cities. As John Keats (1958, 13) wrote in *The Insolent Chariots*, “The automobile changed our dress, manners, social customs, vacation habits, the shape of our cities, consumer purchasing patterns, and positions in intercourse.” Many of us were probably even conceived in a parked car.

Parking requirements in zoning ordinances are particularly ill advised because they directly subsidize cars. We drive to one place to

do one thing, and then to another place to do another thing, and then finally drive a long way back home, parking free almost everywhere. Off-street parking requirements are a fertility drug for cars.

In *The High Cost of Free Parking*, which the American Planning Association published in 2005, I argued that parking requirements subsidize cars, increase traffic congestion, pollute the air, encourage sprawl, increase housing costs, degrade urban design, prevent walkability, damage the economy, and penalize people who cannot afford a car. Since then, to my knowledge, no member of the planning profession has argued that parking requirements do *not* cause these harmful effects. Instead, a flood of recent research has shown they *do* cause these harmful effects. Parking requirements in zoning ordinances are poisoning our cities with too much parking.

On average, cars are parked 95 percent of their lives and driven only 5 percent (*The High Cost of Free Parking*, Appendix B). As a result, cities require an enormous amount of land for parking. In Los Angeles County, all the parking spaces that cities require cover at least 200 square miles of land, equivalent to 14 percent of the county's incorporated land area and 1.4 times larger than the 140 square miles dedicated to the roadway system (see Chapter 14 below).

Ultimately, parking requirements can make driving more difficult because all the cars engendered by the required parking spaces clog the roads and congest traffic. Los Angeles has more parking spaces per square mile than any other city on earth (*The High Cost of Free Parking*, 161-65), and, according to the INRIX 2016 Global Traffic Scorecard, Los Angeles also has worse traffic congestion than any other city on Earth.

Despite all the harm off-street parking requirements cause, they are almost an established religion in city planning. One should not criticize anyone else's religion, but when it comes to parking requirements I'm a protestant and I believe city planning needs a reformation.

### THREE PARKING REFORMS

Reform is difficult because parking requirements don't exist without a reason. If on-street parking is free, removing off-street parking requirements will overcrowd the on-street parking and everyone will complain. Therefore, to distill 800 pages of *The High Cost of Free Parking* into three bullet points, I recommend three parking reforms that can improve cities, the economy, and the environment:

- **Remove off-street parking requirements.** Developers and businesses can then decide how many parking spaces to provide for their customers.

- **Charge the right prices for on-street parking.** The right prices are the lowest prices that will leave one or two open spaces on each block, so there will be no parking shortages. Prices will balance the demand and supply for on-street parking spaces.
- **Spend the parking revenue to improve public services on the metered streets.** If everybody sees their meter money at work, the new public services can make demand-based prices for on-street parking politically popular.

Each of these three policies supports the other two. Spending the meter revenue to improve neighborhood public services can create the necessary political support to charge the right prices for curb parking. If cities charge the right prices for curb parking to produce one or two open spaces on every block, no one can say there is a shortage of on-street parking. If there is no shortage of on-street parking, cities can then remove their off-street parking requirements. Finally, removing off-street parking requirements will increase the demand for on-street parking, which will increase the revenue to pay for public services.

Right pricing is also called demand-based pricing (because the prices are based on parking demand), performance pricing (because the parking performs better), variable or dynamic pricing (because the prices vary), and market-rate pricing (because prices balance the demand and supply for curb parking). I will use these five terms interchangeably.

## THE GOALS OF PARKING AND THE CITY

Parking is the Cinderella of transportation. Universities preach equality but they have a rigid internal status hierarchy, including the status of research topics. Global and national affairs have the most prestige, state government is a big step down, and local government seems parochial. Even within the unglamorous world of local government, parking occupies the lowest rung on the status ladder. Because most academics cannot imagine anything less interesting to study than parking, I was a bottom feeder with little competition for many years. But there is a lot of food down there, and many other academics have joined in what is now almost a feeding frenzy. Parking is far too important not to study.

The 51 chapters in this book summarize recent academic research on parking. Several practitioners have also contributed chapters that explain their experience with charging market prices for on-street parking, dedicating the meter revenue to pay for public services, and removing off-street parking requirements. The results show that parking is an important policy issue, not merely a regulatory detail. Parking affects almost everything and almost everything affects parking.

## THE MOST EMOTIONAL TOPIC IN TRANSPORTATION

Most people consider parking a personal issue, not a policy question. When it comes to parking, rational people quickly become emotional and staunch conservatives turn into ardent communists. Thinking about parking seems to take place in the reptilian cortex, the most primitive part of the brain responsible for making snap judgments about urgent fight-or-flight issues, such as how to avoid being eaten. The reptilian cortex is said to govern instinctive behavior involved in aggression, territoriality, and ritual display—all important issues in parking.

Parking clouds the minds of reasonable people. Analytic faculties seem to shift to a lower level when one thinks about parking. Some strongly support market prices—except for parking. Some strongly oppose subsidies—except for parking. Some abhor planning regulations—except for parking. Some insist on rigorous data collection and statistical tests—except for parking. This parking exceptionalism has impoverished our thinking about parking policies, and ample free parking is seen as an ideal that planning should produce. If drivers paid the full cost of their parking, it would seem too expensive, so we ask someone else to pay for it. But a city where everyone happily pays for everyone else's free parking is a fool's paradise.

Daniel Kahneman, who won the Nobel Prize in economics in 2002 for his research integrating psychology and economics, summarized some of this research in *Thinking, Fast and Slow*. He examined two modes of thought. Fast thinking is instinctive, emotional, and subconscious, while slow thinking is logical, calculating, and conscious. It's hard to be rational about an emotional subject, but when thinking about parking, we should slow down.

I hope *Parking and the City* will convince readers that parking is worth taking seriously. Few people are interested in parking itself, so I always try to show how parking affects whatever people do care strongly about, such as affordable housing, climate change, economic development, public transportation, traffic congestion, and urban design. For example, parking requirements reduce the supply and increase the price of housing. Parking subsidies lure people into cars from public transportation, bicycles, or their own two feet. Cruising for underpriced curb parking congests traffic, pollutes the air, and creates greenhouse gases. Do people really want free parking more than affordable housing, clean air, walkable neighborhoods, good urban design, and a more sustainable planet? Recognizing that our misguided parking policies block progress toward many goals that people care deeply about—from providing affordable housing to slowing global warming—may spark a planning reformation. Reforms in planning for parking may

be the simplest, cheapest, quickest, and most politically feasible way to achieve many important policy goals.

After this introduction, the following 51 chapters are divided into three parts that correspond to three recommended reforms. Part I focuses on removing off-street parking requirements; Part II focuses on charging the right prices for on-street parking; Part III focuses on spending the resulting revenue to improve public services. In the rest of this introduction I will use material from both *The High Cost of Free Parking* and the chapters in this book to show why these reforms are necessary and how they work.

## I. REMOVE OFF-STREET PARKING REQUIREMENTS

City planners set the parking requirements for every art gallery, bowling alley, dance hall, fitness club, hardware store, movie theater, night club, pet store, tavern, and zoo without knowing the demand for parking at any of them. Despite a lack of both theory and data, planners have set parking requirements for hundreds of land uses in thousands of cities—the Ten Thousand Commandments for Off-Street Parking (*The High Cost of Free Parking*, Chapter 3). To paraphrase Charles Darwin, there is grandeur in the array of parking requirements that planners originally created for a few land uses or only one. From so simple a beginning, endless forms of complex parking requirements have been, and are being, evolved.

Although planners have adopted a veneer of professional language to justify the practice, planning for parking is learned on the job and is more a political activity than a professional skill. Consider all the information planners do not know when they set parking requirements:

- How much the required parking spaces cost.
- How much drivers are willing to pay for parking.
- How parking requirements increase the price of everything except parking.
- How parking requirements affect architecture and urban design.
- How parking requirements affect travel choices and traffic congestion.
- How parking requirements affect air and water pollution.
- How parking requirements affect fuel consumption and CO<sub>2</sub> emissions.

Cost is an especially important unknown. For example, without knowing how much the required parking spaces cost to build, planners cannot know how parking requirements increase the cost of housing.