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CITY OF OAKLAND



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OAKLAND, CALIFORNIA

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September 17, 2009

Oakland City Council Oakland, California

President Brunner and Members of the City Council:

RE: Recommendation: Discussion And Action To Adopt An Ordinance Amending Oakland Municipal Code Section 10.36.050 To Increase The Exempted Time Period For A Parking Meter Zone Violation By Changing The Start Time From 8:00 P.M. To 6:00 P.M.

The following is a presentation "The High Cost of Free Parking" by Donald Shoup, (www.yale.edu/.../parking/documents/Highpriceoffreeparking.ppt) to provide some broader context to the parking fee discussion.

Donald Shoup has extensively studied parking as a key link between transportation and land use, with important consequences for cities, the economy, and the environment. His book, *The High Cost of Free Parking*, is one of the influencing parking policy in cities across the country to charge fair market prices for curb parking, dedicate the resulting revenue to finance public services in the metered districts, and reduce or remove off-street parking requirements. Donald Shoup is a Fellow of the American Institute of Certified Planners. He has been a visiting scholar at Cambridge University and the World Bank, and has served as Director of the Institute of Transportation Studies and Chair of the Department of Urban Planning at UCLA.

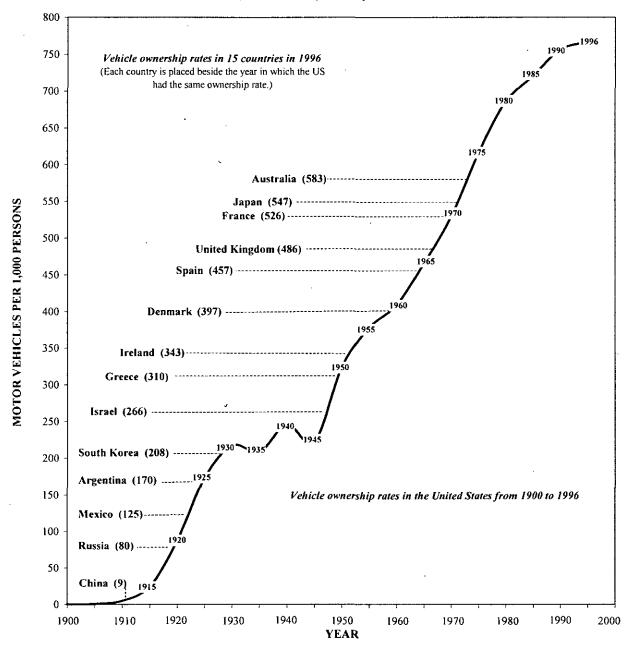
THE HIGH COST OF FREE PARKING

Donald Shoup



VEHICLE OWNERSHIP RATES: THE UNITED STATES FROM 1900 TO 1996 AND 15 OTHER COUNTRIES IN 1996

(Motor vehicles per 1,000 persons)



All transportation systems have three basic elements:

<u>Vehicles</u> <u>Rights of way</u> <u>Terminal capacity</u>

Trains Train tracks Train stations

Airplanes Sky Airports

Ships Oceans Seaports

Cars Roads Parking spaces

Automobile travel is unusual in two ways:

• It requires enormous terminal capacity (several parking spaces per car).

• The cost of parking has been shifted out of the transportation sector and into the prices for everything else. Drivers park free for 99 percent of automobile trips in the US. Who pays for free parking?

Everyone but the motorist.

TABLE 7-4
ANNUAL CAPITAL AND OPERATING COST

(\$billions per year in 1990-1991)

OF PARKING AND ROADS

	Low	High	
Bundled non-residential parking	\$49	\$162	
Bundled residential parking	\$15	\$41	
Municipal and institutional parking	\$12	\$20	
Priced parking	\$3	\$3	
Total cost of parking	\$79 _	\$226	
Total parking subsidy	\$76	\$223	
Priced parking as % of total parking	4%	1%	
Total cost of roads	\$98	\$177	
Parking cost as % of road cost	81%	128%	

Source (Delucchi 1997, Tables 1-5, 1-6, and 1-7)

In 2002, the total subsidy for off-street parking was between \$135 billion and \$386 billion.

In 2002, the federal government spent \$231 billion for Medicare, and \$349 billion for national defense.

Results of changing the price of off-street parking

Employer-Paid Parking

- 95% of all automobile commuters park free at work
- 91% of all commuters drive to work
- 91% of commuters' cars have one occupant
- Most commuters park free regardless of
 - age
 - gender
 - income
 - education
 - residence
- 85 million free parking spaces at work in 1994
- Parking subsidy for commuters was \$36 billion a year

Employer-Paid Parking: A Matching Grant

- Employers pay for parking *at* work if the employee is willing to pay for driving *to* work
- Commuters who do not drive to work do not get a subsidy
- Employer-paid parking encourages solo driving

TABLE 22-2
EMPLOYER-PAID PARKING INCREASES SOLO DRIVING: SEVEN CASE STUDIES

	So	lo driver mode	share	Cars driven to work per 100 employees					
Location and date of case study	Driver pays for parking	Employer pays for parking	Percentage point increase	Driver pays for parking	Employer pays for parking	Increase	Percent increase	Price elasticity of demand	
(1)	(2)	(3)	(4)=(3)-(2)	(5)	(6)	(7)=(6)-(5)	(8)=(7)/(5)	(9)	
1. Civic Center, Los Angeles, 1969	40%	72%	+32%	50	78	+28	. +56%	-0.22	
2. Downtown Ottawa, Canada, 1978	28%	35%	+7%	32	39	+7	+22%	-0.10	
3. Century City, Los Angeles, 1980	75%	92%	+17%	80	94 . •	+14	+18%	-0.08	
4. Mid-Wilshire, Los Angeles, 1984	8%	42%	+34%	30	48	+18	+60%	-0.23	
5. Warner Center, Los Angeles, 1989	46%	90%	+44%	64	92	+28	+44%	-0.18	
6. Washington, D.C., 1991	50%	72%	+22%	58	76	+18	+31%	-0.13	
7. Downtown Los Angeles, 1991	48%	69%	+21%	56	75	+19	+34%	-0.15	
Average of case studies	42%	67%	+25%	53	72	+19	+36%	-0.15	

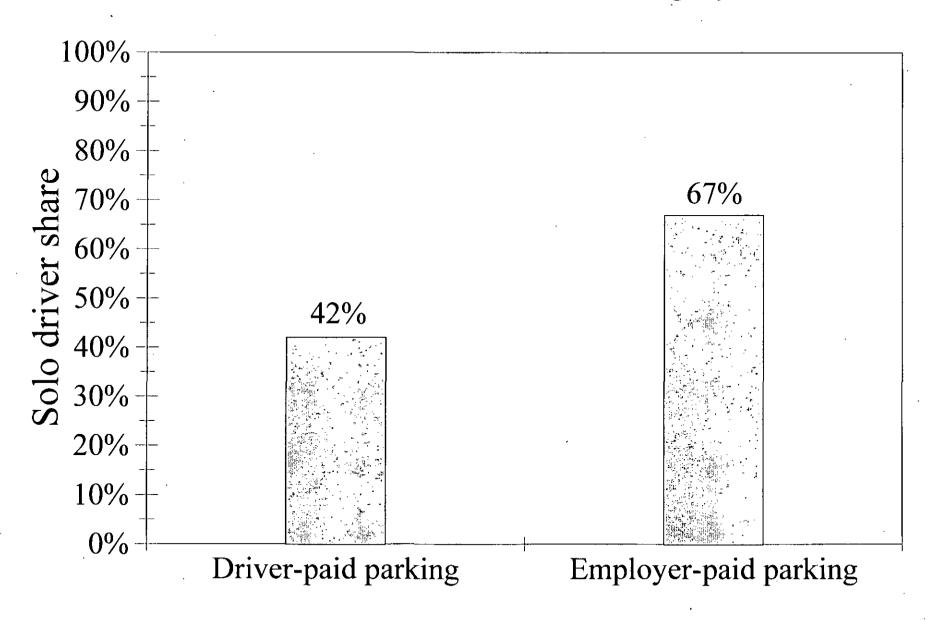
Sources: Groninga and Francis (1969), Transport Canada (1978), Shoup & Pickrell (1980), Surber, Shoup, & Wachs (1984), Soper (1989), Miller (1991), Willson (1991).

Cases 1, 3, 6, and 7 refer to a study comparing the commuting behavior of employees with and without employer-paid parking.

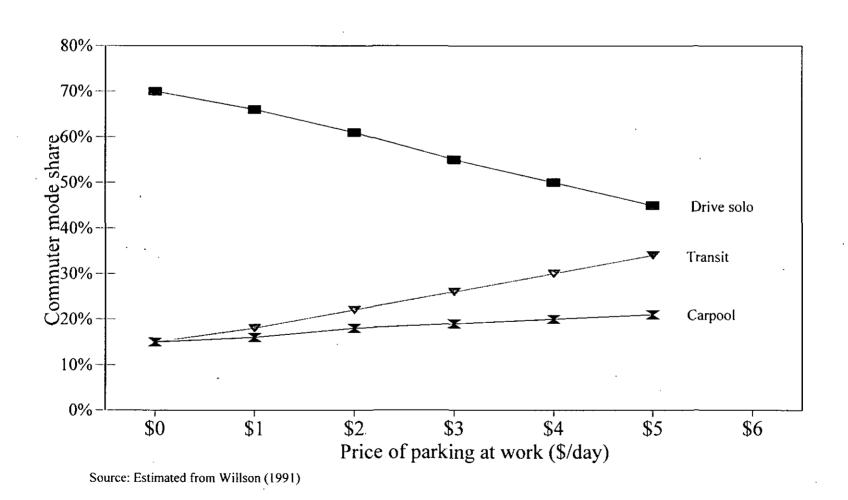
Cases 2, 4, and 5 refer to a study comparing the commuting behavior of employees before and after employer-paid parking was eliminated.

Willson and Shoup (1990b) explain the details of each case study. The arc elasticity of demand is calculated with respect to the price of parking.

Free parking increases solo driving by 60%



Parking Prices Affect Mode Choices For Commuters to Downtown Los Angeles



California's Parking Cash Out Law

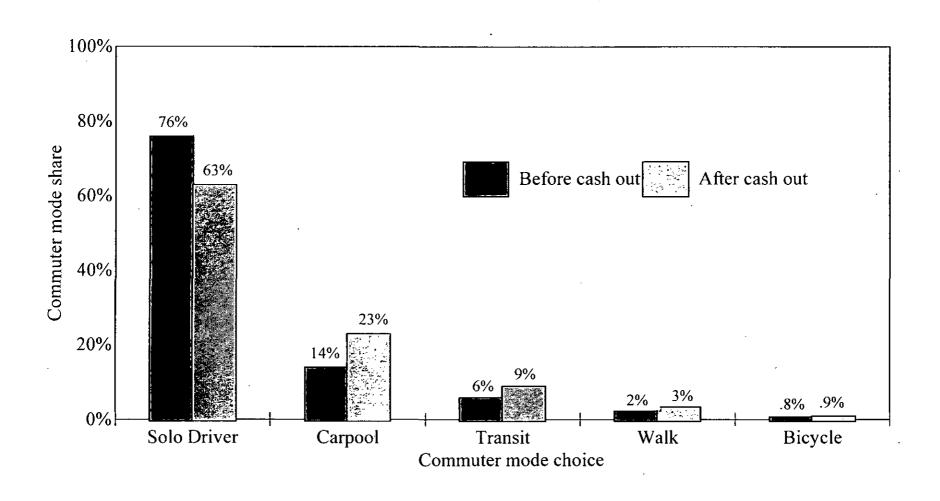
- Employers must provide a cash allowance to an employee equivalent to any parking subsidy offered
- The requirement applies to:
 - Firms with 50 or more employees
 - Only for leased parking spaces

TABLE 25-2
SUMMARY OF TRAVEL CHANGES AFTER PARKING CASH OUT

	S	olo driver	share	Vehicle trips per commuter per day			VMT per employee per year				
Location/case	Before	After	Change	Before	After	Change	% Change	Before	After	Change	% Change
(1)	(2)	(3)	(4)=(2)-(3)	(5)	(6)	(7)=(5)-(6)	(8)=(7)/(6)	(9)	(10)	(11)=(9)-(10)	(12)=(11)/(9)
Downtown LA (5)	75%	53%	-22%	0.79	0.60	-0.19	-24%	5,297	4,013	-1,284	-24%
Downtown LA (8)	61%	45%	-16%	0.75	0.63	-0.12	-16%	5,281	4,418	-864	-16%
Century City (1)	71%	58%	-13%	0.81	0.74	-0.07	-9%	5,461	4,862	-5 <u>9</u> 9	-11%
Century City (4)	88%	76%	-12%	0.93	0.85	-0.08	-9%	6,578	6,006	-585	-9%
Century City (3)	79%	67%	-12%	0.85	0.78	-0.07	-9%	6,113	5,589	-524	-9%
Santa Monica (7)	83%	75%	-8%	0.83	0.79	-0.04	-5%	6,294	5,960	-334	-5%
Santa Monica (6)	85%	78%	-7%	0.90	0.82	-0.08	-9%	6,478	5,910	-568	-9%
West Hollywood (2)	72%	70%	-3%	0.76	0.72	-0.04	-5%	N/A	N/A	N/A	N/A
Weighted average	76%	63%	-13%	0.82	0.73	-0.09	-11%	5,348	4,697	-652	-12%

Source: Shoup 1997c. The firms are listed in descending order of the change in solo driver share in Column 4.

Commuter Mode Share Before and After Parking Cash Out



Results

- Parking cash out reduced the number of cars driven to work by 11%
- After parking cash out, employees
 - traveled 652 fewer vehicle miles per year
 - consumed fewer 26 gallons of fuel per year

Results of increasing the price of curb parking

FIGURE 13-1 PRICES OF CURB AND OFF-STREET PARKING IN SOUTHERN CALIFORNIA

(for parking one hour at noon on a weekday)

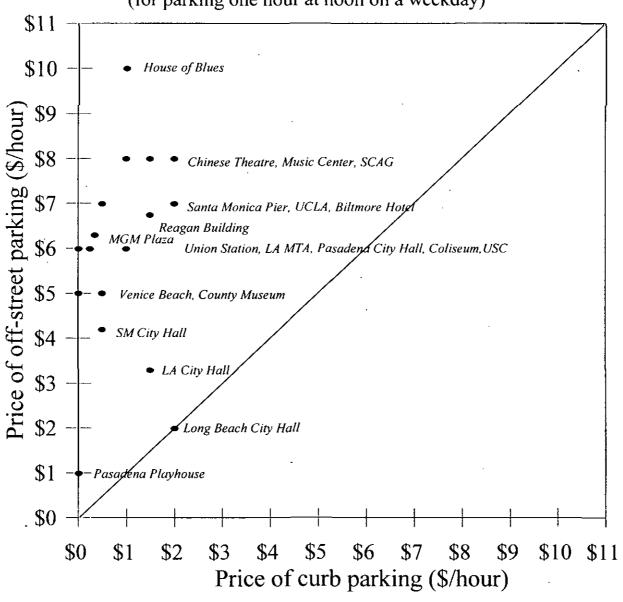


FIGURE 13-2 PRICES OF CURB AND OFF-STREET PARKING

(for parking one hour at noon at city hall on a weekday)

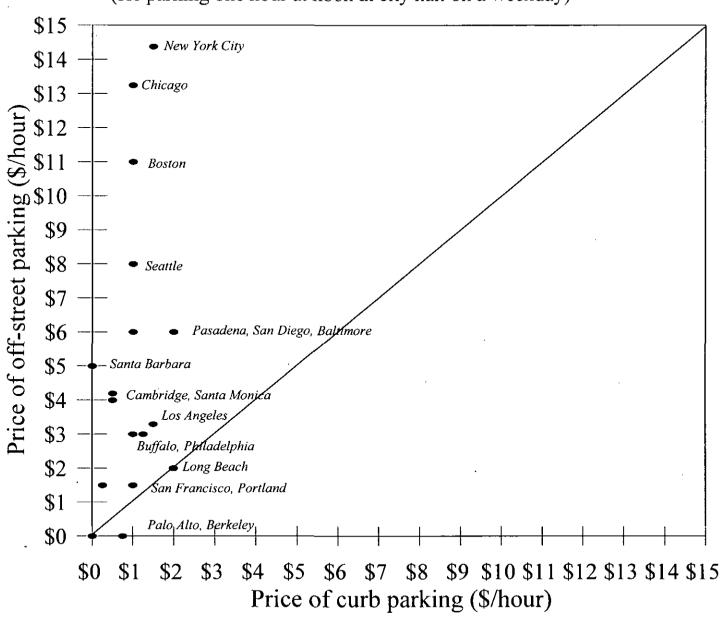
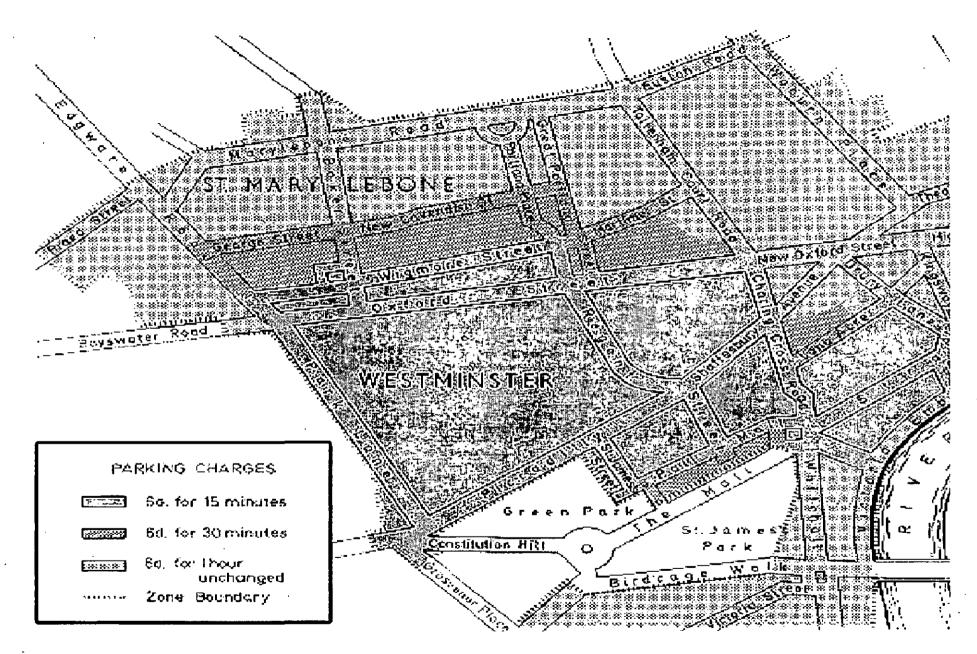


TABLE 11-4
SUMMARY OF RESEARCH ON CRUISING

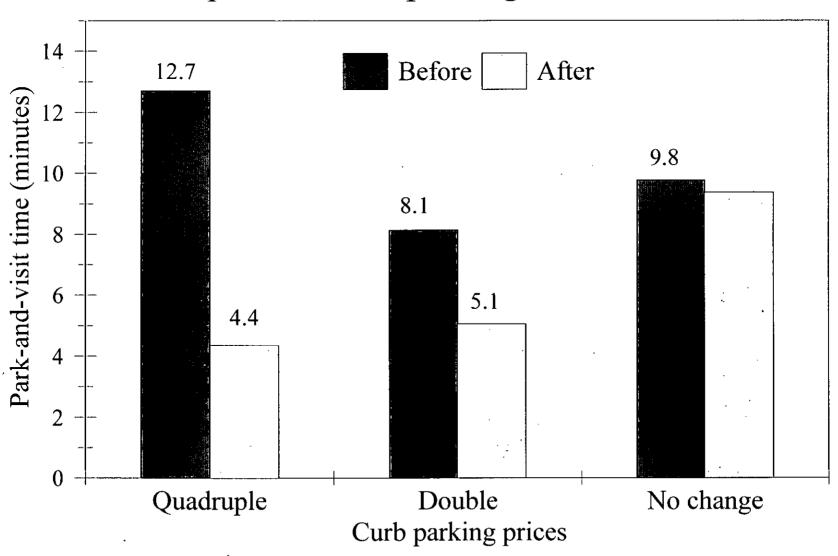
		Share of	Average
		traffic	search
Year	Location	cruising	time
		(percent)	(minutes)
1927	Detroit (1)	19%	
1927	Detroit (2)	34%	
1960	New Haven	17%	
1965	London (1)		6.1
1965	London (2)		3.5
1965	London (3)		3.6
1977	Freiburg	74%	6.0
1984	Jerusalem		9.0
1985	Cambridge	30%	11.5
1993	New York (1)	8%	7.9
1993	New York (2)		10.2
1993	New York (3)		13.9
1997	San Francisco		6.5
2001	Sydney		6.5
Average		30%	7.7



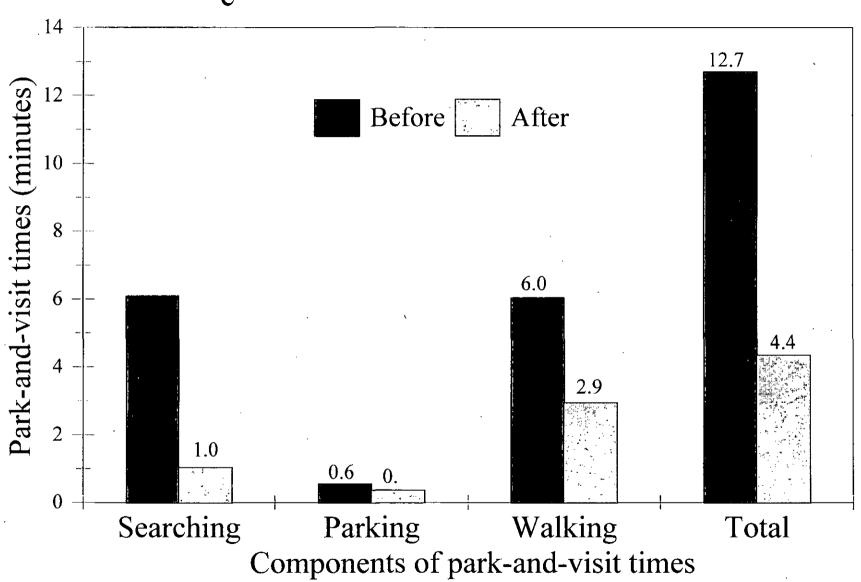
DISTRIBUTION OF NEW PARKING METER CHARGES IN THE LONDON PARKING ZONES

(Source: Inwood 1965)

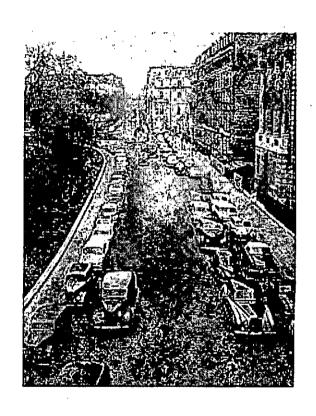
Park-and-visit times before and after changing the price of curb parking in London



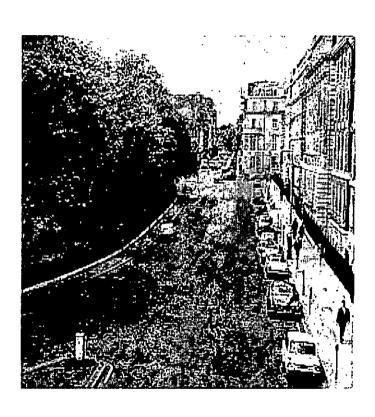
Park-and-visit times before and after R parking prices were quadrupled



The effects of parking prices on Grosvenor Square in London







No meters

Meters

Prices quadrupled

Conclusion

• Parking is heavily subsidized. The annual subsidy for off-street parking may be about the size of the budget for national defense.

• Parking prices have a profound effect on travel choices. Parking subsidies substantially increase vehicle travel.

