

COST OF PARKING

APRIL 4, 2008

restoration

consulting



studies



design



 parking



WALKER
PARKING CONSULTANTS

The Parking Conundrum

INEXPENSIVE

Inexpensive and convenient, but not abundant.

Inexpensive and abundant, but not convenient.

CONVENIENT

Convenient and abundant, but expensive.

ABUNDANT

You can have any two, but not all three.



There Is No Such Thing As Free Parking!

- Parking is not free! However, the cost of parking is hidden from the end user.
- The true cost of parking is a HUGE part of every project.
- Parking is expensive in terms of land, improvements and operations.
- Parking also is expensive in social and environmental ways. Free parking contributes to larger problems.
- Free parking is **not FAIR**. Free parking must be paid in rent, taxes and/or the products you consume (tuition). Non-drivers, bus riders, bicycle riders, car-poolers (non-parkers) are forced to subsidize others when the true cost of parking is embedded in the cost of other things.
- **Free parking subsidizes single-occupancy vehicle (SOV) commuting over all other alternatives.**



Social and Environmental Costs

- Direct environmental impacts include:
 - Excessive land consumption. Loss of greenspace (reduced landscaping, farmland and wildlife habitat)
 - Impervious surfaces increase storm water management costs. Oil and other pollutants wash off parking lots, exacerbating water pollution and degrade water quality.
 - “Heat Island “effects raise air temperature, resulting in higher air-conditioning bills in and around the campuses.
 - Generous parking requirements and free or low parking tend to discourage infill development and encourage sprawl (low density, dispersed development patterns).
- If employees can park for free (or nearly free), the vast majority of employees will choose to drive. As a result, free parking tends to increase per capita vehicle ownership and use, and reduces the viability of other modes such as walking, cycling and public transit.



Part of the solution lies in **CHOICE**?

1. In our society, everyone is free to make choices every day.
2. Every decision has costs - in money and time.
3. We all pay more when others make poor choices.
4. Making good choices requires accurate information.
5. It is difficult to make good choices and value alternatives rationally when the cost of the most wasteful and expensive choice is subsidized and/or hidden from the consumer.
6. “Unbundling” the cost of parking from other costs allows the commuter to evaluate alternatives, as well as the personal economic impact of their decision.
7. Transportation Demand Management (TDM) is a system to reintroduce **choice** by allowing the user to see the true cost of parking and make better decisions.



What is TDM?

- TDM requires that the true cost of SOV commuting and parking be “uncoupled” from other costs.
- TDM promotes alternatives to SOV commuting:
 - Biking
 - Walking
 - Bus Transit
 - Car Pooling
 - Van Pooling
- New federal tax laws allow commuting and parking costs to be included in “cafeteria plans” just like medical expenses and daycare.
- Opting out of parking can result in “Cash Out” of parking benefits. (This is like being paid not to park!)
- Not everyone has to change their behavior to make a difference. If just a few take part, the system becomes better for all.



What is the Impact of a New Parking Structure?

The project cost to build a parking structure is driven by the following key factors:

1. Number of Spaces Required,
2. Construction Costs
3. Operating Costs, and
4. Cost of Capital (Financing Costs).



Typical Construction Costs (R.S. Means - 2007)

Square Foot Costs by City	'07	'06	% chg.	'07	'06	% chg.
	Parking Garage			Underground Parking		
Atlanta	35.85	33.48	7.1	56.63	53.28	6.3
Baltimore	37.21	34.79	7.0	58.79	55.37	6.2
Boston	46.28	43.29	6.9	73.11	68.90	6.1
Chicago	45.43	41.83	8.6	71.78	66.57	7.8
Cleveland	40.34	37.60	7.3	63.73	59.84	6.5
Dallas	33.68	31.61	6.6	53.21	50.30	5.8
Denver	38.14	35.88	6.3	60.25	57.10	5.5
Detroit	42.11	40.18	4.8	66.52	63.95	4.0
Houston	35.49	32.84	8.1	56.06	52.27	7.3
Kansas City	41.34	38.76	6.7	65.31	61.69	5.9
Los Angeles	42.91	40.00	7.3	67.78	63.65	6.5
Miami	34.81	32.43	7.3	54.99	51.61	6.5
Minneapolis	45.03	42.02	7.2	71.14	66.87	6.4
New Orleans	34.73	32.36	7.3	54.86	51.49	6.5
New York City	52.49	49.40	6.3	82.93	78.61	5.5
Philadelphia	45.83	42.84	7.0	72.41	68.18	6.2
Phoenix	35.81	32.81	9.2	56.57	52.21	8.4
Pittsburgh	39.66	37.52	5.7	62.65	59.72	4.9
Portland, Ore.	40.98	38.69	5.9	64.74	61.57	5.2
St. Louis	41.66	38.31	8.8	65.82	60.97	8.0
San Diego	41.82	38.95	7.4	66.07	61.98	6.6
San Francisco	48.84	45.58	7.2	77.16	72.53	6.4
Seattle	41.74	39.02	7.0	65.95	62.10	6.2
Washington, D.C.	39.34	36.51	7.7	62.15	58.11	6.9
Winston-Salem, N.C.	31.72	28.69	10.6	50.11	45.65	9.8
Mean SF Cost	40.53	37.82	7.3	64.03	60.18	6.5
Minimum SF Cost	31.72	28.69	4.8	50.11	45.65	4.0
Maximum SF Cost	52.49	49.40	10.6	82.93	78.61	9.8

← Minneapolis
\$45.03/SF



Soft Costs

	Low	High
Architectural/ Engineering Fees	5.0%	9.0%
Client Administration	1.0%	2.0%
Financing	3.0%	5.0%
Survey	0.25%	0.50%
Geotechnical Report	0.50%	1.0%
Testing (Soil, Concrete, etc.)	1.0%	2.0%
Construction Contingency	4.0%	6.0%
Total	14.25%	25.5%
Say:	15% to 25%	

Note: Soft costs are all a function of construction costs.



Project Cost for 1,000-Space Structure

Component			Cost
Hard Cost	\$45.00/SF		
Efficiency	330 SF/Space	\$14,850	
		1,000 Spaces	\$14,850,000
+ Upgrades	Façade, Amenities	15%	2,227,500
Total Hard Cost			17,077,500
+ Soft Cost		20% of Hard Cost	3,415,500
+ Land Cost		Not included	\$0
Total Conceptual Project Cost			\$20,943,000
Cost per Space			\$21,000±



Operating Expenses

Median Annual Cost per Space:

	-Attended-	-Unattended-
Wages & Benefits	\$145.00	\$0.00
Management Costs	\$60.00	\$70.00
Security Cost	\$70.00	\$90.00
Utilities	\$50.00	\$45.00
Insurance	\$15.00	\$10.00
Supplies	\$10.00	\$5.00
Routine Maintenance	\$35.00	\$65.00
Structural Maintenance (Reserve)	\$50.00	\$50.00
Elevator/ Equipment Maintenance	\$10.00	\$10.00
Other Expenses	\$75.00	\$35.00
Total	\$520.00	\$380.00



Breakeven Revenue Model (Non-Profit)

Assumptions:

Percent Financed	100%
Interest Rate	5.0%
Amortization Period	25 years

		Annual Operating Cost Per Space							
		\$ 200	\$ 300	\$ 400	\$ 500	\$ 600	\$ 700	\$ 800	
Project Costs Per Space	\$ 12,000	\$ 88	\$ 96	\$ 104	\$ 113	\$ 121	\$ 129	\$ 138	
	13,000	\$ 94	\$ 102	\$ 110	\$ 119	\$ 127	\$ 135	\$ 144	
	14,000	\$ 99	\$ 108	\$ 116	\$ 124	\$ 133	\$ 141	\$ 149	
	15,000	\$ 105	\$ 114	\$ 122	\$ 130	\$ 139	\$ 147	\$ 155	
	16,000	\$ 111	\$ 120	\$ 128	\$ 136	\$ 145	\$ 153	\$ 161	
	17,000	\$ 117	\$ 126	\$ 134	\$ 142	\$ 151	\$ 159	\$ 167	
	18,000	\$ 123	\$ 131	\$ 140	\$ 148	\$ 156	\$ 165	\$ 173	
	19,000	\$ 129	\$ 137	\$ 146	\$ 154	\$ 162	\$ 171	\$ 179	
	20,000	\$ 135	\$ 143	\$ 152	\$ 160	\$ 168	\$ 177	\$ 185	
	25,000	\$ 164	\$ 173	\$ 181	\$ 189	\$ 198	\$ 206	\$ 214	
	30,000	\$ 194	\$ 202	\$ 211	\$ 219	\$ 227	\$ 236	\$ 244	
	35,000	\$ 224	\$ 232	\$ 240	\$ 249	\$ 257	\$ 265	\$ 274	
40,000	\$ 253	\$ 262	\$ 270	\$ 278	\$ 287	\$ 295	\$ 303		



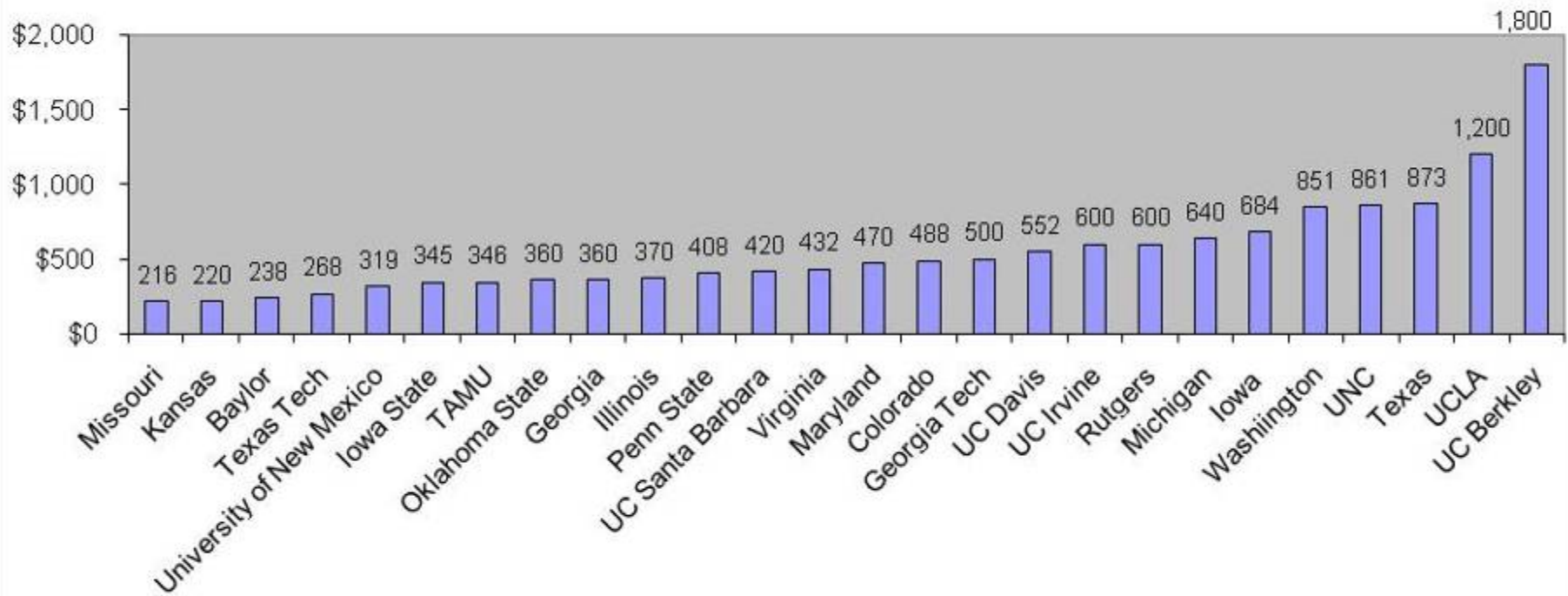
Break-Even Conclusions

- Sticker Shock!
- Each space must earn about \$150/month, or \$1,800 per year to achieve break-even.
- Most universities spread this cost across the entire parking system.
- Some universities subsidize the cost with a Facilities Fee or Transportation Fee that is paid by the entire student body.



Most Universities Do Not Break Even

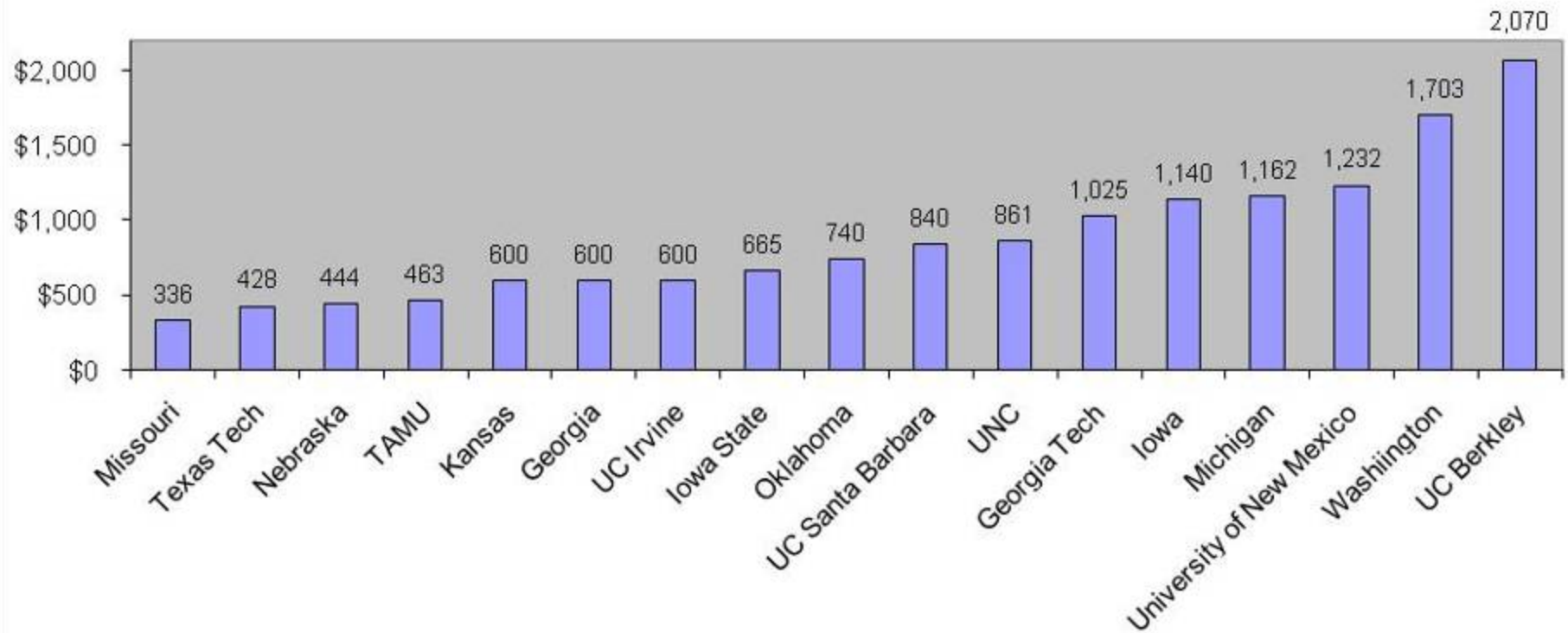
Annual Parking Permit - Unreserved Structured Space



Average = \$555

Comparable Permit Fees

Annual Parking Permit - Reserved Structured Space



Average = \$877

Annual Cost to the Parking System

Annual Cost (1,000 space structure) If Distributed Across Entire System:	
Principle (100% Financed)	\$21,000,000
Annual Debt Service (5%, 25-year)	\$1,490,000
Operating Expense (\$400/space/year)	\$400,000
Annual Cost to Own & Operate	\$1,890,000
Annual Cost per Structured Space	\$1,890
Parking System Permits Sold	12,000 Permits
Average Annual Additional Cost per Permit	\$158
<ul style="list-style-type: none"> •If a higher fee is charged for a garage permit and/or a student transportation fee is charged, the annual burden on the standard parking permit can be reduced. •Universal student fees for parking are not legal in some states (see: “fairness issue” mentioned earlier.) 	



Questions & Comments

