Parking Inventory for Seattle and Bellevue 1999

May 2000

Prepared by
Puget Sound Regional Council

Abstract

REPORT:	Parking Inventory for Seattle and Bellevue, 1999
PROJECT TITLE:	Forecasts and Databases
SUBJECT:	Spring 1999 inventory of all off-street parking for downtown Seattle and downtown Bellevue, including occupancy rates and costs to park per 2 hours, per day, and per month.
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EXECUTIVE SUMMARY

This study provides an important database of parking availability, utilization, and costs to support both regional and local planning needs. The Puget Sound Regional Council (PSRC) uses parking data as input to its regional travel demand forecasting models. These models provide estimates of the amount and types of travel we can expect in the years ahead, and allow policy makers to examine the impacts of alternative transportation policy decisions. Parking costs are a key factor in modeling mode choice for both work and non-work trips.

During April and May, 1999, the Puget Sound Regional Council inventoried all off-street parking in the Central Business Districts (CBDs) in Seattle and Bellevue, and in the Seattle First Hill and lower Queen Anne areas. The two CBDs were also surveyed in 1987 and 1989; First Hill and lower Queen Anne were first inventoried in 1989. In 1992, 1994, and 1996, all areas were inventoried by the PSRC. The study area for Seattle consists of 19 zones; there are 7 zones in Bellevue for data collection and analysis. Denny Regrade, Pioneer Square, and the International District are considered part of the Seattle CBD for this study.

The parking inventory contains information on the number of stalls, occupancy, and parking costs. The types of parking inventoried included:

- off-street parking, both public and private
- free and pay parking
- carpool and vanpool lots
- motor pool parking, both private and government
- hotels and motels
- short-term customer parking such as convenience stores and restaurants
- residential parking (in Seattle CBD only).

Findings

Availability

In Seattle, 54,063 parking stalls were counted in the CBD; 10,714 in First Hill; and 16,482 in lower Queen Anne. This count reflected an increase of 917 spaces in the Seattle CBD since 1996 and 13,968 since 1987. Three-quarters of the growth since the first inventory occurred before 1992. Several large construction projects completed during that time, either stand-alone parking facilities or garages within new office buildings, account for most of the 1987-1992 growth.

The increase since 1994 is largely attributable to the completion of new parking garages in the CBD, many of which replaced existing parking facilities: Swedish and Virginia

Mason hospital parking on First Hill, and the Seattle Center garage at First and John in lower Queen Anne, as well as several residential buildings in the Seattle CBD, primarily in the Denny Regrade.

In Bellevue, 30,387 stalls were counted. This is a small decrease from 1996, largely because of new residential construction that replaced public parking and current office construction that was not completed at the time of the inventory.

Occupancy

In the Seattle CBD, occupancy rates decreased from 80 percent (a ten-year high) to less than 77 percent. The latter is close to the 76 percent average over the past decade. This suggests that parking supply was not meeting demand in 1996 as a number of large parking facilities were then under construction.

Occupancy rates outside the Seattle CBD have varied between 1989 and 1999. Rates on First Hill have been close to the CBD average of 76 percent, and in lower Queen Anne they have ranged from 53 to 59 percent.

Occupancy rates in the Bellevue CBD were at around 55 percent in the late 1980s, then increased to 61 percent in 1992, and since have been between 61 and 64 percent.

Cost

The average costs of two-hour, daily, and monthly parking in downtown Seattle and Bellevue are:

	Two-Hour	Daily	Monthly
Seattle CBD	$6.20	$14.39	$173.57
First Hill	3.20	11.14	89.08
Lower Queen Anne	4.50	6.39	71.76
Bellevue CBD	3.78	11.21	105.51

Increases in parking costs occurred in every area with the exception of short-term parking in the area just east of the Seattle Center. Most increases were significant, with many more than 10 percent.

In Bellevue, rates have also greatly increased since 1996, with daily rates seeing the largest increase of 17.6 percent, from $6.90 to $11.21. Overall, parking rates in the Bellevue CBD are similar to rates outside the downtown Seattle core.

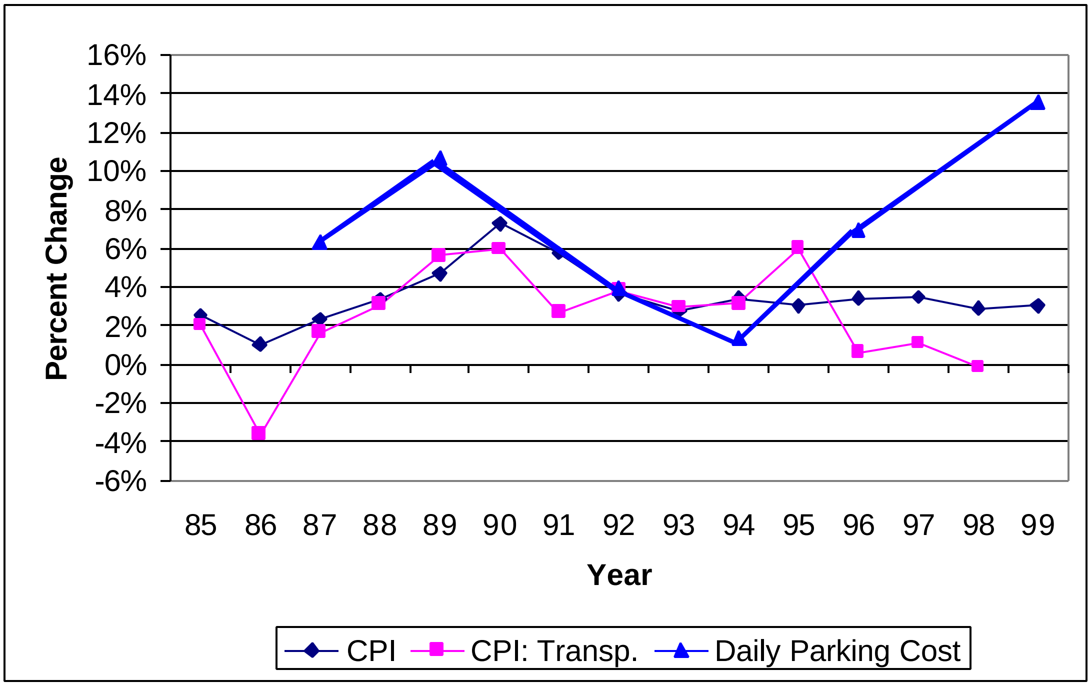
Uses of Parking Data

This report is intended to support the needs of people interested in parking policies. The federal Clean Air Act and state Commute Trip Reduction Act require that local governments and large employers take a closer look at commuter travel to and from our central business districts and formulate policies to reduce the environmental impacts of commuting.

More than half of the air pollution in the central Puget Sound region comes from motor vehicles. With federal and state mandates to reduce air pollution, the region is seeking ways to discourage people from driving alone and to encourage them to use transit, carpools or some other mode of travel. One of the more effective ways to influence people's travel behavior is to increase the cost and/or decrease the supply of parking. The state's Commute Trip Reduction Law requires certain jurisdictions in the region to review their parking policies and, where appropriate, revise them to support commute trip reduction. For these reasons, planners and policy makers can benefit from the information provided by this survey.

Figure 1 offers a comparison of the average daily cost to park in the Seattle CBD since 1984 with the consumer price indices of all goods and services and of private transportation costs. Changes in parking costs in the past decade have closely followed the trends in the CPI through 1995, responding to specific and local factors such as office vacancy rates and parking availability in the CBD. Since that time, parking costs have increased geometrically while the increase in overall costs has remained steady and the rate of increase in transportation costs have dropped to close to zero. The transportation component includes the cost of new and used vehicles, fuel, maintenance and repair, and insurance.

Figure 1
Daily Parking Costs and CPI, Annual Percent Change, 1985-1999



Note: Daily parking cost is for the Seattle CBD only.
The Consumer Price Index (1982-84=100) is for the Seattle-Tacoma metropolitan area.

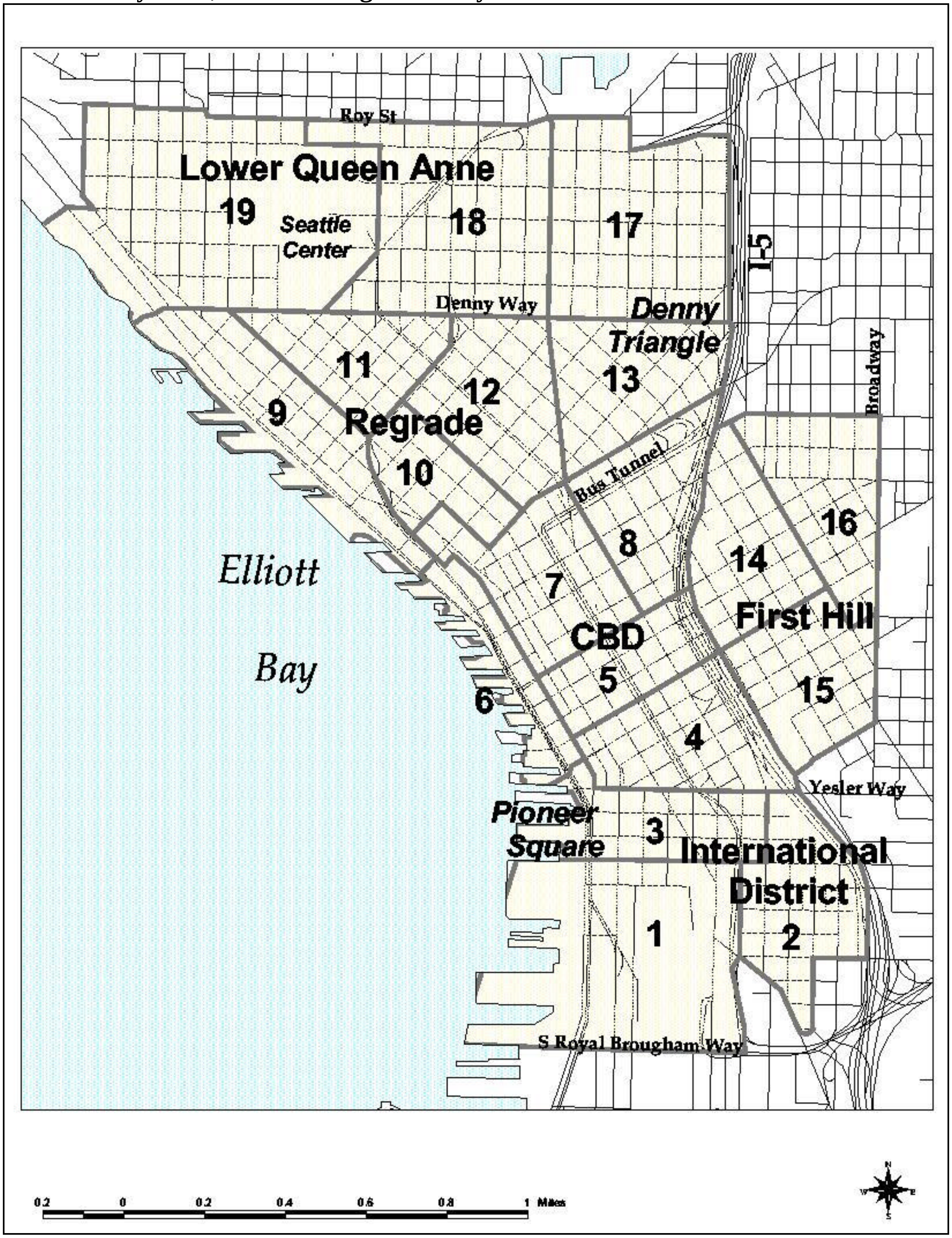
I. INTRODUCTION

This is the sixth regional inventory of off-street parking in Seattle and Bellevue conducted by the Puget Sound Regional Council (PSRC). The Seattle inventory in 1987 covered only the Central Business District (CBD). Beginning in 1989, the study was expanded to include portions of both First Hill and lower Queen Anne. The Bellevue study area remained the same. The Seattle Engineering Department's Transportation Division maintains an inventory of all metered, on-street parking within the City of Seattle, so on-street parking is not included in this inventory.

This report summarizes data by parking zone in four study areas: the Seattle CBD, First Hill and lower Queen Anne within Seattle, and the Bellevue CBD.   The 1999 results are compared with results from the previous inventories. (For First Hill and lower Queen Anne, comparisons go back only to 1989, the first year those two areas were inventoried.) The PSRC plans to continue updating the inventory database on a two-year cycle. The data are used in the PSRC's travel forecasting models, particularly in estimating choice of travel mode.

The report is divided into three chapters: the first chapter describing the inventory in the Seattle CBD, the second in First Hill and in lower Queen Anne, and the final chapter describing the inventory in downtown Bellevue. Each chapter includes a description of the study area, the methods used for conducting the inventory, and the findings. The findings include data from the 1989, 1992, 1994, and 1996 inventories. An appendix describes the methodology in more detail.

Figure 2
Seattle Study Area, 1999 Parking Inventory



A. STUDY AREA

The Seattle study area is shown in Figure 2. Zones 1 through 13 comprise the Seattle Central Business District (CBD), bounded by Elliott Bay to the west, Denny Way to the north, Interstate 5 to the east, and Royal Brougham Way to the south. This, in turn, is divided into three subareas: Pioneer Square/International District (zones 1-3), Downtown Core (zones 4-8), and Denny Regrade (zones 9-13).

Zones 14 through 16 are located east of the CBD and comprise the First Hill area. The area is bounded by Interstate 5 to the west, Pine Street to the north, Broadway to the east, and Alder Street to the south.

Zones 17 through 19 comprise lower Queen Anne, which is bounded by Elliott Bay to the west, Denny Way to the south, Interstate 5 to the east, and Roy, Valley and Mercer streets to the north.

In the 1987 study, only zones 1 through 13 were inventoried. This area had historically been considered the "Central Business District", the primary area for studying economic and commuting activities. In 1989, it was decided to add First Hill and lower Queen Anne because these areas are providing parking to persons using the CBD.

B. METHODOLOGY

Data were collected in April and May of 1999, using both permanent and temporary PSRC staff. The inventory was conducted Monday through Friday between 9:30 a.m. and 11:30 a.m., and between 1:30 p.m. and 3:30 p.m.

Data collected for each parking lot include census tract and block number, owner or tenant, address, total stalls, morning and afternoon occupancy, cost for two hours, daily and monthly parking, and type of parking.

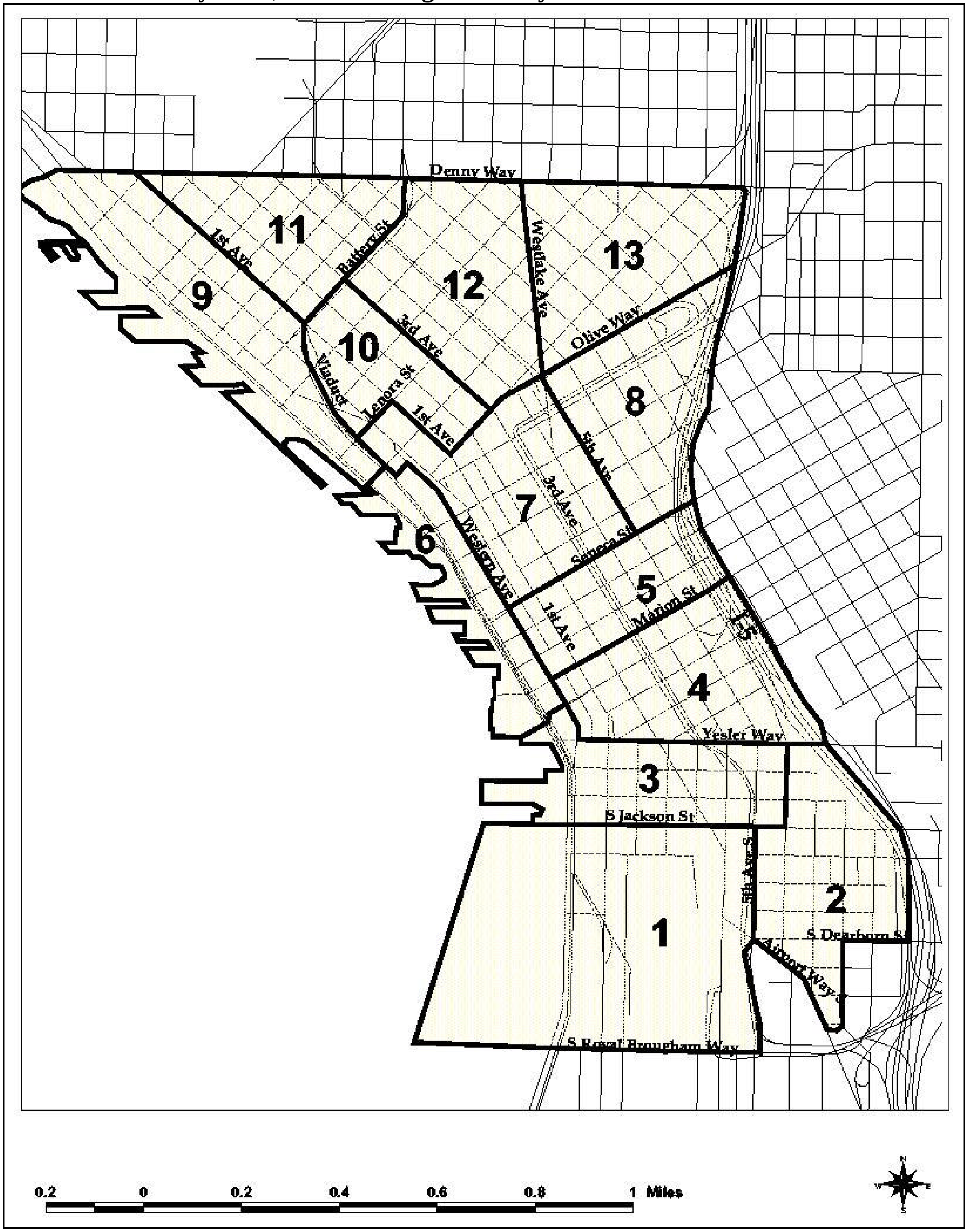
Parking type was used to analyze free parking and was coded as

- C -- free, short-term customer;
- E -- employee
- R -- residential
- O -- all other

“Other” includes public pay lots and garages and parking of unknown type. For most analyses, “Employee” parking is combined with “Other”.

Residential parking was inventoried only in the Seattle CBD (zones 1-13). All data were entered into a database that included the 1996 parking inventory data for comparison. A more detailed methodology is included as an Appendix to this report.

Figure 3
Seattle CBD Study Area, 1999 Parking Inventory



II. SEATTLE CBD

Total Stalls

Figure 3 shows the CBD study area, comprised of zones 1-13, as well as the total parking stalls and average daily parking costs in each zone. Zones 1-3 include Pioneer Square and the International District. Zones 9-13 include Denny Regrade and the northern waterfront. Zones 4-8 comprise the downtown core, what is commonly referred to as the "CBD".

A total of 54,063 parking stalls were counted in the Seattle CBD (Table 1).   This represents an increase of 917 since 1996 and 8,674 parking stalls since 1989. However, the annual increase has not been uniform during this time. The average yearly increase has declined from a high of around 2,000 between 1987 and 1992 to little more than 300 between 1996 and 1999. On a percentage basis, the average annual increase went from a high of 6.4% between 1987 and 1989 to a low of 0.6% between 1996 and 1999.

The growth in parking availability corresponded to increases in office and commercial space in the late 1980s. Between 1989 and 1996, major office buildings and parking structures, including the Washington State Convention Center, Two Union Square, Key Tower, US Bank Centre, Washington Mutual Tower, and the Pike Place Market Garage, contributed several thousand new spaces to the downtown inventory. In the past three years, major additions that include Pacific Place, the theater and Nike Town parking at 7th and Pike, Benaroya Hall, the new REI store, and Virginia Mason parking on First Hill have been balanced by the loss of such major facilities as the south Kingdome lot, the old Frederick & Nelson garage replaced by Pacific Place, and several large lots in the Denny Triangle that are currently being replaced by new construction.

Between 1996 and 1999, only zones 1, 8 and 9 experienced increases in the number of stalls greater than 2 percent annually. Six zones had a net loss of parking, particularly in the Belltown area (zones 9-11). This may be misleading in those zones, however, because of an unknown number of recent residential developments about which the Regional Council could obtain no information.

Zone 8 experienced the greatest increase since 1996 (1,150 stalls), largely due to Pacific Place and the Nike Town/Planet Hollywood/Gameworks complex. But since 1994, before the new development began, the increase has been only 700.

Figure 4 shows the number of stalls in each zone for each of the five inventories between 1989 and 1999.

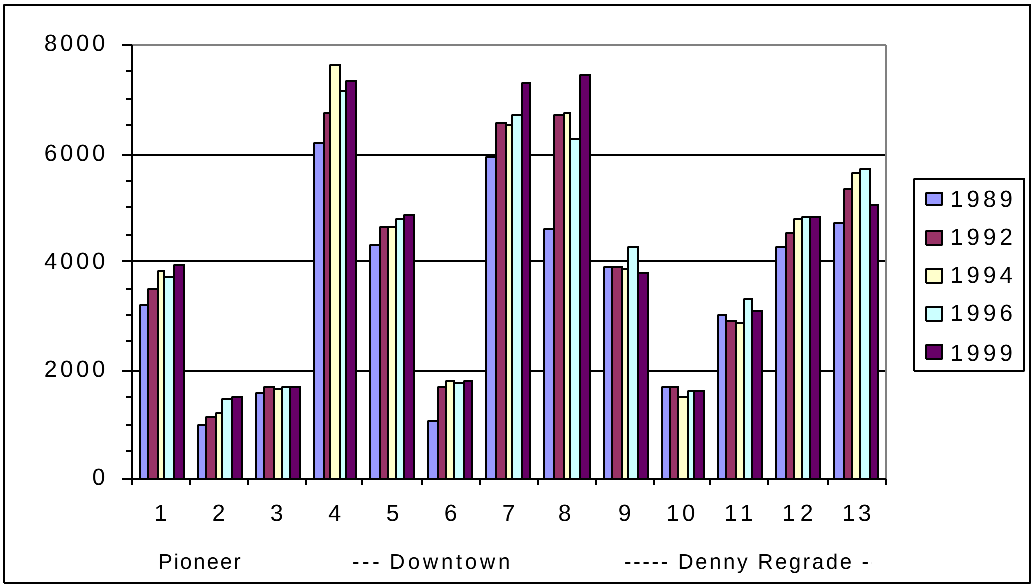
Table 1
Seattle CBD: Total Stalls and Annual Percent Change, 1989-1999

Parking Zone	1989 Total Stalls	1992 Total Stalls	89-92 Annual % Change	1994 Total Stalls	92-94 Annual % Change	1996 Total Stalls	94-96 Annual % Change	1999 Total Stalls	96-99 Annual % Change	89-99 Annual % Change
1	3184	3489	3.1%	3822	3.1%	3700	-1.6%	3940	3.2%	2.2%
2	992	1131	4.5%	1190	1.7%	1452	10.5%	1501	1.7%	4.2%
3	1547	1664	2.5%	1635	-0.6%	1663	0.9%	1651	-0.4%	0.7%
4	6195	6731	2.8%	7623	4.2%	7136	-3.2%	7311	1.2%	1.7%
5	4317	4621	2.3%	4653	0.2%	4790	1.5%	4866	0.8%	1.2%
6	1067	1704	16.9%	1791	1.7%	1763	-0.8%	1816	1.5%	5.5%
7	5964	6537	3.1%	6527	-0.1%	6682	1.2%	7292	4.5%	2.0%
8	4613	6674	13.1%	6739	0.3%	6283	-3.4%	7439	8.8%	4.9%
9	3894	3881	-0.1%	3857	-0.2%	4270	5.2%	3771	-6.0%	-0.3%
10	1658	1680	0.4%	1488	-4.0%	1600	3.7%	1593	-0.2%	-0.4%
11	2994	2887	-1.2%	2876	-0.1%	3276	6.7%	3062	-3.3%	0.2%
12	4267	4518	1.9%	4777	1.9%	4817	0.4%	4811	-0.1%	1.2%
13	4697	5346	4.4%	5618	1.7%	5714	0.9%	5010	-6.4%	0.6%
Total	45389	50863	3.9%	52596	1.1%	53146	0.5%	54063	0.9%	1.8%

Table 2
Seattle CBD: Occupancy Rates and Annual Percent Change, 1989-1999

Parking Zone	1989 Occ. Rate (%)	1992 Occ. Rate (%)	89-92 Annual % Change	1994 Occ. Rate (%)	92-94 Annual % Change	1996 Occ. Rate (%)	94-96 Annual % Change	1999 Occ. Rate (%)	96-99 Annual % Change	89-99 Annual % Change
1	41.9%	50.7%	6.6%	53.0%	1.5%	57.6%	4.3%	42.2%	-14.4%	0.1%
2	60.4%	57.5%	-1.6%	55.5%	-1.1%	62.7%	6.2%	72.2%	7.3%	1.8%
3	79.7%	84.2%	1.8%	81.2%	-1.2%	72.2%	-5.7%	84.7%	8.3%	0.6%
4	82.1%	76.5%	-2.3%	79.6%	1.3%	86.6%	4.3%	87.8%	0.7%	0.7%
5	82.3%	74.4%	-3.3%	75.2%	0.3%	85.5%	6.6%	85.9%	0.3%	0.4%
6	80.3%	67.1%	-5.8%	72.5%	2.6%	77.2%	3.2%	71.0%	-4.1%	-1.2%
7	84.8%	79.2%	-2.3%	83.8%	1.9%	88.9%	3.0%	82.5%	-3.6%	-0.3%
8	72.9%	71.1%	-0.8%	80.7%	4.3%	90.4%	5.9%	74.2%	-9.4%	0.2%
9	79.0%	62.4%	-7.6%	65.7%	1.7%	74.2%	6.3%	76.3%	1.4%	-0.4%
10	71.8%	70.5%	-0.6%	66.9%	-1.7%	67.9%	0.7%	80.6%	8.9%	1.2%
11	64.1%	72.9%	4.4%	67.4%	-2.6%	84.4%	11.9%	81.4%	-1.8%	2.4%
12	73.1%	74.5%	0.6%	71.1%	-1.5%	74.5%	2.3%	79.3%	3.2%	0.8%
13	81.1%	88.0%	2.8%	81.9%	-2.4%	80.0%	-1.2%	85.6%	3.4%	0.5%
Total	75.4%	73.3%	-0.9%	74.6%	0.6%	80.3%	3.7%	78.2%	-1.3%	0.4%

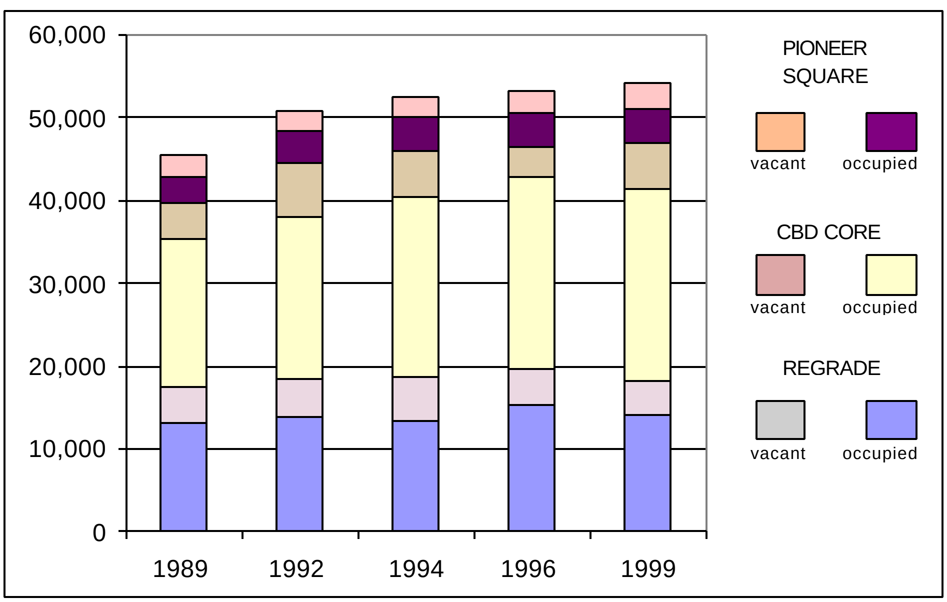
Figure 4
Seattle CBD: Parking Availability by Zone, 1989-99



Occupancy

Parking in the CBD had an overall occupancy rate of 78.2 percent, down from the ten-year high of 80.3 percent in 1996. This figure is closer to the average occupancy rate of 76 percent in the decade since 1989. This indicates that the 1996 rate was anomalous because a number of large facilities were at the time under construction, replacing existing parking but themselves not yet available for use. Thus the supply of parking during the 1996 inventory was not meeting the demand.

Figure 5
Seattle CBD: Total Capacity and Occupancy, 1989-1999



The largest decreases in occupancy were in zones 1, 8 and 11. Zone 1 at the time of the inventory was dominated by two large facilities. Usage of the north Kingdome lot varied from day to day based on events taking place there, and occupancy was highly dependent on which day the count was made. The other large facility is the garage at the Pioneer Square Bus Tunnel station. Recently expanded to 1,100 spaces, it is not yet being used to capacity.

Zone 8 saw a decrease in occupancy from 90.4 to 74.2 percent. This is probably due in large part to the addition of three facilities with high short-term usage by shoppers.

The largest increases in occupancy occurred in zones 3 and 10, with 5.5 and 5.9 percent increases respectively. In these zones, in Pioneer Square and Belltown, the supply of parking spaces was unchanged between 1996 and 1999 and their occupancy rates in 1996 were lower than the downtown average.

Figure 5 shows the change in total stalls and occupancy from 1989 to 1999 for the three subareas in the CBD.

Parking Costs

Parking costs in this report do not reflect "early bird" special rates, employee subsidies (including free parking), or special rates (i.e., carpools). Parking costs were treated in the same manner in previous inventories. Three rates were recorded: 2-hour, daily, and monthly (for a definition of two-hour parking rates, see the Appendix.) All costs are weighted by total stalls.

Two-Hour. Average costs for parking 2 hours are shown in Table 3. Averages ranged from $2.30 in zone 2 to $8.49 in zone 5; the CBD average was $6.20. The annual rate of increase since 1996 is 7.5 percent, continuing a steady climb since a period of stability in the early 90's. Most of the large increases took place in the outlying zones: Pioneer Square (zones 1 and 3), northern waterfront (zone 9), and the Denny Triangle (zone 13).

Daily. Average daily costs are shown in Table 4. Averages ranged from $4.77 in zone 2 to $18.50 in zone 8 and $18.45 in zone 5; the CBD average was $14.39. Daily rates experienced an even more pronounced trend as two-hour costs: from an average annual change of 1.4 percent between 1992 and 1994 to 13.6 percent between 1996 and 1999. Daily costs in zones 1 and 13 rose at a rate of 22 percent. Zone 11 had a modest growth of 2.1 percent annually but had experienced a much higher rate of 12.4 percent over the previous two years. Figure 6 on page 10 shows the geographic distribution of daily rates for the entire study area.

Table 3
Seattle CBD: Average Two-hour Costs & Annual Percent Change, 1989-1999

	1989	1992	89-92	1994	92-94	1996	94-96	1999	96-99	89-99
Parking Zone	Weighted Avg	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Annual % Change
1	$ 3.30	$ 3.21	-0.9%	$ 3.05	-2.5%	$ 3.24	3.1%	$ 4.13	8.4%	2.3%
2	n.a.	$ 3.05	n.a.	$ 2.42	-10.9%	$ 2.20	-4.7%	$ 2.30	1.5%	n.a.
3	$ 2.47	$ 2.75	3.6%	$ 3.08	5.8%	$ 3.28	3.2%	$ 4.59	11.9%	6.4%
4	$ 4.40	$ 4.76	2.7%	$ 5.11	3.6%	$ 5.38	2.6%	$ 6.96	9.0%	4.7%
5	$ 4.99	$ 5.92	5.9%	$ 6.03	0.9%	$ 7.17	9.0%	$ 8.49	5.8%	5.5%
6	$ 2.73	$ 4.85	21.1%	$ 4.76	-0.9%	$ 5.17	4.2%	$ 5.75	3.6%	7.7%
7	$ 3.70	$ 4.53	7.0%	$ 4.77	2.6%	$ 5.93	11.5%	$ 6.82	4.8%	6.3%
8	$ 4.65	$ 4.41	-1.8%	$ 4.66	2.8%	$ 5.18	5.4%	$ 6.22	6.3%	3.0%
9	$ 2.46	$ 2.93	6.0%	$ 3.26	5.5%	$ 3.37	1.7%	$ 5.48	17.6%	8.3%
10	$ 3.05	$ 3.81	7.7%	$ 3.64	-2.3%	$ 4.94	16.5%	$ 5.62	4.4%	6.3%
11	$ 2.42	$ 4.39	22.0%	$ 3.17	-15.0%	$ 4.66	21.2%	$ 5.17	3.6%	7.9%
12	$ 3.53	$ 3.70	1.6%	$ 3.78	1.1%	$ 4.22	5.7%	$ 5.02	5.9%	3.6%
13	$ 3.01	$ 3.50	5.2%	$ 3.42	-1.1%	$ 3.81	5.5%	$ 5.72	14.5%	6.6%
AVG	$ 3.76	$ 4.28	4.4%	$ 4.41	1.5%	$ 4.99	6.4%	$ 6.20	7.5%	5.1%

"n.a." -- not applicable; fewer than 5 lots in zone with 2-hour rates.

Table 4
Seattle CBD: Average Daily Costs & Annual Percent Change, 1989-1999

	1989	1992	89-92	1994	92-94	1996	94-96	1999	96-99	89-99
Parking Zone	Weighted Avg	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Annual % Change
1	$ 3.88	$ 4.37	4.0%	$ 4.44	0.8%	$ 4.54	1.1%	$ 8.41	22.8%	8.0%
2	n.a.	$ 3.42	n.a.	$ 3.63	3.0%	$ 3.43	-2.8%	$ 4.77	11.6%	n.a.
3	$ 5.29	$ 5.42	0.8%	$ 5.57	1.4%	$ 6.36	6.9%	$ 9.05	12.5%	5.5%
4	$ 10.30	$ 11.23	2.9%	$ 10.93	-1.3%	$ 11.31	1.7%	$ 16.13	12.6%	4.6%
5	$ 9.93	$ 11.31	4.4%	$ 12.12	3.5%	$ 14.05	7.7%	$ 18.45	9.5%	6.4%
6	$ 8.00	$ 7.51	-2.1%	$ 8.14	4.1%	$ 9.36	7.2%	$ 11.52	7.2%	3.7%
7	$ 8.48	$ 10.09	6.0%	$ 10.27	0.9%	$ 12.38	9.8%	$ 16.16	9.3%	6.7%
8	$ 7.82	$ 8.67	3.5%	$ 9.65	5.5%	$ 11.89	11.0%	$ 18.50	15.9%	9.0%
9	$ 5.28	$ 6.82	8.9%	$ 6.21	-4.6%	$ 7.44	9.5%	$ 12.16	17.8%	8.7%
10	$ 5.41	$ 7.02	9.1%	$ 6.39	-4.6%	$ 8.43	14.9%	$ 9.97	5.7%	6.3%
11	$ 6.35	$ 7.01	3.4%	$ 6.55	-3.3%	$ 8.27	12.4%	$ 8.81	2.1%	3.3%
12	$ 6.71	$ 7.20	2.4%	$ 7.56	2.5%	$ 8.44	5.7%	$ 11.36	10.4%	5.4%
13	$ 5.68	$ 5.80	0.7%	$ 5.13	-6.0%	$ 6.10	9.0%	$ 11.21	22.5%	7.0%
AVG	$ 7.45	$ 8.37	4.0%	$ 8.60	1.4%	$ 9.83	6.9%	$ 14.39	13.6%	6.8%

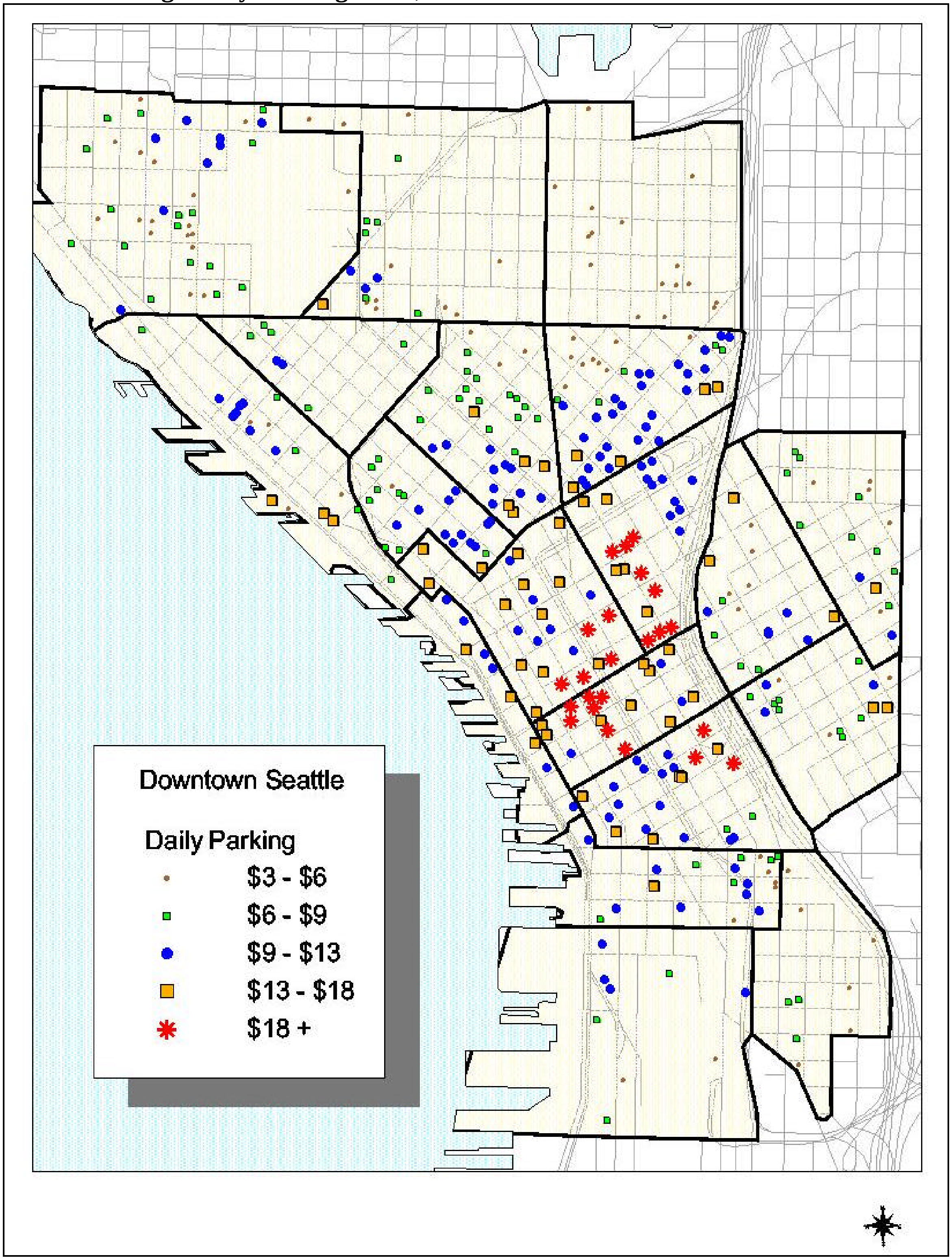
"n.a." -- not applicable; fewer than 5 lots in zone with daily rates.

Table 5
Seattle CBD: Average Monthly Costs & Annual Percent Change, 1989-1999

	1989	1992	89-92	1994	92-94	1996	94-96	1999	96-99	89-99
Parking Zone	Weighted Avg	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Weighted Avg	Annual % Change	Annual % Change
1	$ 65.27	$ 68.17	1.5%	$ 61.87	-4.7%	$ 65.50	2.9%	$ 138.33	28.3%	7.8%
2	$ 47.56	n.a.	n.a.	n.a.	n.a.	$ 50.87	n.a.	$ 69.55	11.0%	3.9%
3	$ 83.13	$ 109.02	9.5%	$ 93.52	-7.4%	$ 96.36	1.5%	$ 113.34	5.6%	3.1%
4	$ 98.29	$ 123.51	7.9%	$ 128.78	2.1%	$ 138.89	3.9%	$ 184.51	9.9%	6.5%
5	$ 119.88	$ 139.89	5.3%	$ 149.74	3.5%	$ 153.62	1.3%	$ 202.12	9.6%	5.4%
6	$ 102.63	$ 106.76	1.3%	$ 109.95	1.5%	$ 121.09	4.9%	$ 157.16	9.1%	4.4%
7	$ 104.72	$ 120.23	4.7%	$ 123.79	1.5%	$ 142.17	7.2%	$ 193.41	10.8%	6.3%
8	$ 118.72	$ 128.80	2.8%	$ 134.15	2.1%	$ 152.27	6.5%	$ 195.43	8.7%	5.1%
9	$ 45.64	$ 63.41	11.6%	$ 60.14	-2.6%	$ 65.13	4.1%	$ 104.07	16.9%	8.6%
10	$ 71.84	$ 96.92	10.5%	n.a.	n.a.	$ 95.97	n.a.	$ 125.51	9.4%	5.7%
11	$ 65.53	$ 77.81	5.9%	$ 94.33	10.1%	$ 89.43	-2.6%	$ 118.39	9.8%	6.1%
12	$ 87.24	$ 108.43	7.5%	$ 108.61	0.1%	$ 119.79	5.0%	$ 157.47	9.5%	6.1%
13	$ 77.35	$ 82.84	2.3%	$ 84.44	1.0%	$ 91.15	3.9%	$ 152.84	18.8%	7.0%
AVG	$ 93.34	$ 111.43	6.1%	$ 116.30	2.2%	$ 129.14	5.4%	$ 173.57	10.4%	6.4%

"n.a." -- not applicable; fewer than 5 lots in zone with monthly rates.

Figure 6
Seattle: Average Daily Parking Costs, 1999



Monthly. Average monthly parking costs are shown in Table 5. Averages ranged from $69.55 in zone 2 to $202.12 in zone 5; the CBD average was $173.57. The annual rate of increase between 1996 and 1999, 10.4 percent, is significantly more than the next highest period of growth: 6.1 percent between 1989 and 1992. (See Table 5). The largest growth took place in zone 1, which includes the Pioneer Square/Kingdome area south of Jackson. However, only a few rates were collected in that zone, predominantly in large facilities. Thus a large change in monthly rates for any one of them will have a noticeable effect on the zonal average.

The zones with the highest average daily and monthly parking costs are in the office and retail core (zones 4, 5, 7 and 8). These zones have consistently contained the highest posted rates since 1989. This area includes large new office towers with higher-priced parking garages that have a marked influence on the average cost figures. For example, the average parking costs in zone 5 are influenced by large office towers such as the Wells Fargo Center, Bank of California Center, Second & Seneca, and 1001 4th Avenue buildings. In zone 4, the Columbia Center and Fifth Avenue Plaza have higher-than-average costs, while the Washington Mutual Tower, Rainier Square, and Westlake Center in zone 7, and Two Union Square and US Bank Centre in zone 8 do also. Overall, parking costs have increased in the CBD at a faster rate than any time since 1989.

Table 6 details, for each parking rate, the percent of all pay lots that raised or lowered prices since 1996, as well as the average decrease or increase in dollars, and the percent that kept prices the same.

Very few lots lowered rates, in contrast to the 1992-1994 period, when the percent of lots lowering rates ranged from 9 to 22 percent. The inventory found only one CBD facility with a lower monthly rate in 1999 compared to 1996, while three others had unchanged rates. For daily rates, five facilities lowered them (varying from $1-$5) and 22 had the same rates. Nearly one-quarter (23.8 percent) of lots with hourly parking had the same 2-hour rates in 1999 compared to 1996; another nine lots had lower rates.

Table 6
Seattle CBD: Percent of Pay Lots that Raised or Lowered Prices, and Average Price Change in Dollars, 1996-1999

	1996-1999					
	Two-hour		Daily		Monthly	
Up	72.2 %	$1.91	88.8 %	$3.73	96.5 %	$40.63
Down	4.0 %	-$1.06	2.1 %	-$3.20	0.9 %	-$40.00
No change	23.8 %		9.2 %		2.6 %	

Parking Type

Table 7 lists, by zone, the number and type of pay and free stalls, as well as the number of stalls for which we have no cost information. The table shows the percent of stalls by type --“employee”, “customer”, “residential”, and “other” (primarily general public parking) in three categories: all parking, pay lots, and missing. "Pay" parking includes any lot that imposes any type of short-term (2-hour or daily) or long-term (monthly) fee for parking and may include some stalls that are free to use at certain times of the day, or for certain people or purposes. Most public parking provides short-term rates, usually both 2-hour and daily, and many also have monthly rates.

“Employee” parking identified by the inventory is single use parking restricted to the employees of the business or organization that owns or leases the parking facility. Such dedicated use facilities are mostly found in the peripheries of downtown, where real estate costs and zoning make them feasible. Employee parking in “Other” (public) lots, which may provide special employee rates, were not included in the inventory. Employee parking is generally long-term and provides either daily or monthly rates or both.

“Customer” parking is by definition short-term free parking, and, where posted, usually with time limits of an hour or less. The proportion of customer parking is highest in the International District (zone 2) with 25.6 percent free, followed by Denny Regrade (zones 11 to 13), with between 4.4 and 9.6 percent free. In the entire CBD, 2.8 percent of the 54,063 total stalls were free.

“Stalls w/ Missing Rates” include lots where no determination about cost can be made, either because they are unknown or unobtainable. The percentage of lots with missing cost information is highest in those zones with numerous small lots, such as the Regrade and Denny Triangle and the International District.

Table 7
Seattle CBD: Parking by Type, 1999

Parking Zone	Pay Lot				Missing				All Parking				
	Percent of Total			Total Stalls	Percent of Total			Total Stalls	Percent of Total				Total Stalls
	E	O	R		E	O	R		C	E	O	R	
1	5.6%	94.4%	n.a.	2857	27.1%	72.9%	n.a.	1066	0.4%	11.4%	88.2%	0.0%	3940
2	0.0%	91.9%	8.1%	665	60%	17.7%	22.2%	451	25.6%	18.1%	46.0%	10.3%	1501
3	2.7%	97.3%	0.0%	1480	86.6%	4.9%	8%	142	1.8%	9.9%	87.6%	0.7%	1651
4	0.0%	100%	0.0%	5552	99%	0.0%	1%	1759	0.0%	23.8%	75.9%	0.3%	7311
5	0.0%	100.0%	0.0%	4800	42%	22.7%	35%	66	0.0%	0.6%	99.0%	0.5%	4866
6	7.1%	90%	2.5%	1687	42.6%	0.0%	57.4%	101	1.5%	8.9%	84.0%	5.6%	1816
7	0.0%	100%	0.4%	6811	13%	0.0%	87.3%	464	0.2%	0.8%	93.0%	6.0%	7292
8	0.0%	98.5%	1.5%	7271	42%	45.1%	12.8%	164	0.1%	0.9%	97.3%	1.8%	7439
9	6.1%	78.5%	15.4%	2808	80.1%	14.6%	5.4%	797	4.4%	21.5%	61.5%	12.6%	3771
10	1.9%	87.7%	10.4%	1152	27.8%	13.6%	58.6%	396	2.8%	8.3%	66.8%	22.1%	1593
11	40.9%	43.0%	16.1%	1434	52.8%	8.2%	39.0%	1482	4.8%	44.7%	24.1%	26.4%	3062
12	0.0%	100.0%	0.0%	3619	41%	51.4%	8%	730	9.6%	6.2%	83.0%	1.2%	4811
13	7.2%	91.0%	1.8%	4088	91.9%	3.8%	4.3%	702	4.4%	18.8%	74.8%	2.0%	5010
Total	3.2%	94.4%	2.5%	44224	61.2%	19.8%	19.0%	8320	2.8%	12.0%	80.2%	4.9%	54063

III. FIRST HILL & LOWER QUEEN ANNE

Total Stalls

Only that portion of First Hill that provides parking for the CBD or includes the major medical complexes is included in the First Hill study area (Figure 8). The study area includes the following major medical facilities: Swedish Hospital, Virginia Mason Hospital, Harborview Medical Center, and the Fred Hutchinson Cancer Research Center. It also has several large apartment buildings, and its eastern edge borders on Seattle University.

The lower Queen Anne area extends from I-5 on the east to Elliott Bay on the west, and from Denny Way on the south to Roy, Valley, and Mercer streets on the north. Seattle Center dominates the western portion, with several mid-rise office buildings in the southern end toward Denny Way. Zones 17 and 18 have a mix of residential, commercial, and some industrial uses. Aurora Avenue (State Highway 99) runs through zone 18. Neither area was surveyed in 1987.

There were 10,714 parking stalls counted on First Hill and 16,482 on lower Queen Anne (Table 8). The First Hill increase of 386 stalls was mainly due to a new Virginia Mason garage at 9th and Seneca. In zones 17-19, which lost a total of 447 stalls between 1996 and 1999, the Experience Music Project replaced a large Seattle Center lot, while various construction projects and adjustments to existing parking facilities account for the remainder of the loss.

In contrast to the small annual increase of 1.2 percent in First Hill and annual decrease of .9 percent in lower Queen Anne, the seven years before 1996 saw annual increases of 3.3 and 2.6 respectively, due to expanded hospital parking in First Hill and new Seattle Center parking in Zone 19.

Table 8
First Hill & Lower Queen Anne: Total Stalls and Percent Change, 1989-1999

	Parking Zone	1989 Total Stalls	1992 Total Stalls	89-92 Change in Stalls	1994 Total Stalls	92-94 Change in Stalls	1996 Total Stalls	94-96 Change in Stalls	1999 Total Stalls	96-99 Change in Stalls	*89-99 Annual % Change*
First Hill	**14**	2657	2738	1.0%	2846	2.0%	3742	14.7%	4299	4.7%	*4.9%*
	15	3232	3360	1.3%	3786	6.2%	3577	-2.8%	3547	-0.3%	*0.9%*
	16	2350	2462	1.6%	2979	10.0%	3009	0.5%	2868	-1.6%	*2.0%*
	TOTAL	8239	8560	1.3%	9611	6.0%	10328	3.7%	10714	1.2%	*2.7%*
Queen Anne	**17**	3336	3796	4.4%	4081	3.7%	4289	2.5%	4108	-1.4%	*2.1%*
	18	5225	5624	2.5%	5807	1.6%	5830	0.2%	5819	-0.1%	*1.1%*
	19	5738	6239	2.8%	6208	-0.2%	6810	4.7%	6555	-1.3%	*1.3%*
	TOTAL	14299	15659	3.1%	16096	1.4%	16929	2.6%	16482	-0.9%	*1.4%*

Figure 7
First Hill Study Area, 1999 Parking Inventory

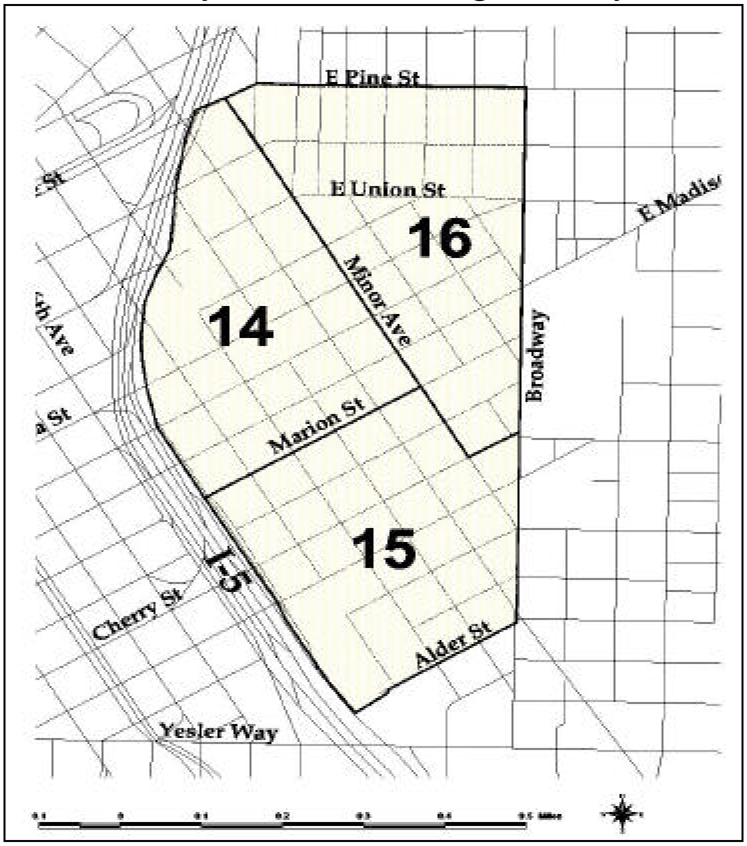
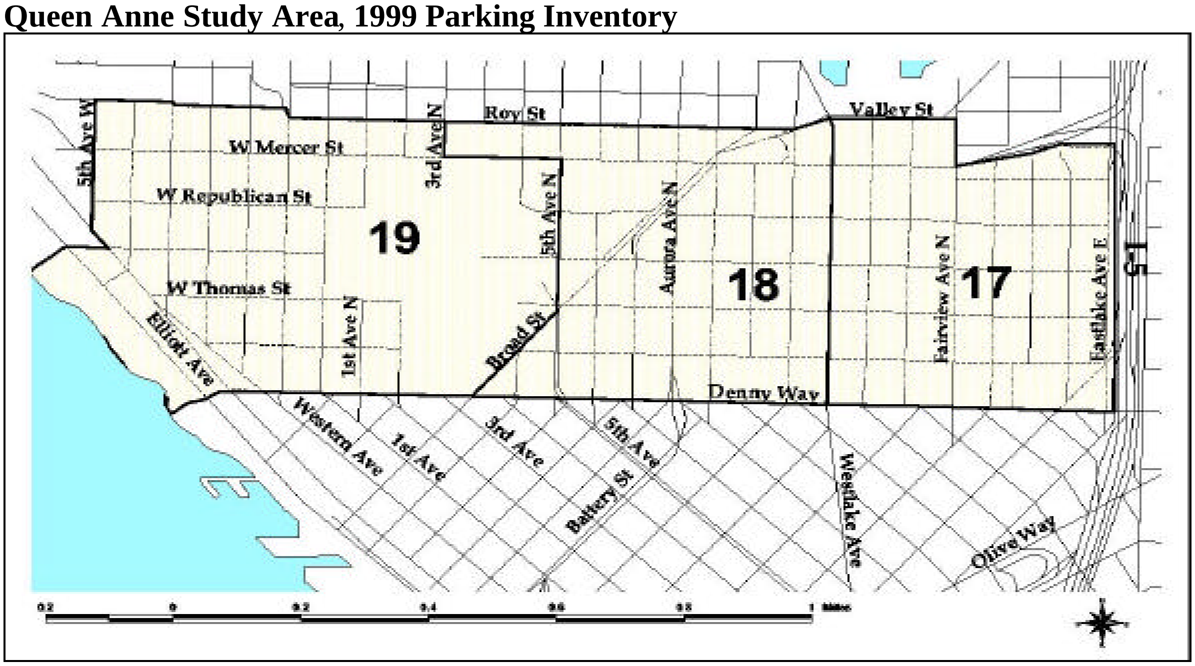


Figure 8
Queen Anne Study Area, 1999 Parking Inventory



Occupancy

Overall occupancy rates in the two areas were effectively unchanged in 1999, 76.7 and 59.3 percent compared to 76.2 and 58 percent in 1996, even though the individual zones varied considerably (Table 9). In First Hill, zone 14 was the only zone of the three to add significant parking and saw occupancy drop 12 percent from 1996; zone 15 had a slight decrease in the number of stalls but a healthy 16 percent increase in occupancy rates since 1996.

Occupancy in lower Queen Anne also varied considerably, from 48.7 percent in zone 18 (down from 55.8 percent in 1996) to 65 percent in the other two zones (both increases over 1996.) Since 1989, occupancy in the three zones show no trends but instead increasing or decreasing essentially randomly. This is probably because the area is dominated by short-term retail parking and irregular event parking around the Seattle Center. Because most major events occur on evenings and weekends, occupancy was lower on weekdays when the study was conducted and is much lower than the rest of the study area.

First Hill's occupancy rates are similar to those in the downtown core and Regrade (70-90 percent.) This may be due to First Hill's employment density and its proximity to the CBD. That is, some downtown workers take advantage of lower parking costs, park on First Hill, and walk to their downtown work sites.

Table 9
First Hill & Lower Queen Anne: Change in Occupancy Rates, 1989-1999

	Parking Zone	1989 Occ. Rate (%)	1992 Occ. Rate (%)	89-92 Annual % Change	1994 Occ. Rate (%)	92-94 Annual % Change	1996 Occ. Rate (%)	94-96 Annual % Change	1999 Total Stalls	96-99 Change in Stalls	*89-99 Annual % Change*
First Hill	**14**	88.0%	81.2%	-2.6%	82.3%	0.7%	77.0%	-3.3%	67.9%	-4.1%	*-2.6%*
	15	77.6%	79.0%	0.6%	78.3%	-0.4%	76.9%	-0.9%	89.3%	5.1%	*1.4%*
	16	76.4%	74.7%	-0.8%	68.1%	-4.5%	74.4%	4.5%	74.4%	0.0%	*-0.3%*
	TOTAL	80.6%	78.4%	-0.9%	76.3%	-1.4%	76.2%	-0.1%	76.7%	0.2%	*-0.5%*
Queen Anne	**17**	63.6%	69.1%	2.8%	63.8%	-3.9%	61.1%	-2.2%	65.3%	2.2%	*0.3%*
	18	45.2%	47.2%	1.4%	41.9%	-5.7%	55.8%	15.4%	48.7%	-4.5%	*0.7%*
	19	64.4%	56.1%	-4.5%	57.0%	0.8%	57.8%	0.7%	64.9%	4.0%	*0.1%*
	TOTAL	57.2%	57.5%	0.1%	53.3%	-3.7%	58.0%	4.3%	59.3%	0.7%	*0.4%*

Parking Costs

Average parking costs in First Hill and lower Queen Anne are listed in Tables 10-12. The average cost to park for two hours was $3.20 and $4.50 respectively. For daily parking it was $11.14 and $6.39, and for monthly parking it was $89.08 and $71.76. Daily costs in First Hill are approximately midway between those in the CBD and those in lower Queen Anne. First Hill monthly costs are also generally higher than those in Queen Anne, but both are significantly lower than the CBD average. The highest monthly averages are in zone 14, which, being adjacent to the downtown core, are more in line with CBD averages and are nearly twice those in the other two First Hill zones. Zone 19, with its Seattle Center-related facilities, also has significantly higher monthly costs than the rest of lower Queen Anne.

Two-hour parking is anomalous for these two areas. Short-term parking has consistently been lower in First Hill than lower Queen Anne since 1989.

Table 10
First Hill & Lower Queen Anne:
Average 2-hour Costs & Annual Percent Change, 1989-1999

	Parking Zone	1989 Weighted Avg	1992 Weighted Avg	89-92 Percent Change	1994 Weighted Avg	92-94 Percent Change	1996 Weighted Avg	94-96 Percent Change	1999 Weighted Avg	96-99 Percent Change	*89-99 Percent Change*
First Hill	**14**	$ 1.93	$ 1.97	0.7%	$ 2.36	9.5%	$ 2.63	5.6%	$ 3.28	7.6%	*5.4%*
	15	$ 1.77	$ 2.19	7.4%	$ 1.49	-17.5%	$ 2.30	24.2%	$ 2.58	3.9%	*3.8%*
	16	$ 1.35	$ 1.42	1.7%	$ 1.34	-2.9%	$ 2.35	32.4%	$ 3.61	15.4%	*10.3%*
	TOTAL	$ 1.73	$ 1.94	3.9%	$ 1.65	-7.8%	$ 2.46	22.1%	$ 3.20	9.2%	*6.3%*
Queen Anne	**17**	$ 1.43	$ 1.62	4.2%	$ 1.61	-0.3%	$ 1.93	9.5%	$ 2.22	4.7%	*4.5%*
	18	$ 2.68	$ 2.79	1.3%	$ 2.99	3.5%	$ 5.56	36.4%	$ 4.90	-4.1%	*6.2%*
	19	$ 1.95	$ 2.85	13.5%	$ 3.02	2.9%	$ 3.83	12.6%	$ 4.75	7.5%	*9.3%*
	TOTAL	$ 2.06	$ 2.64	8.6%	$ 2.87	4.3%	$ 4.46	24.7%	$ 4.50	0.3%	*8.1%*

Table 11
First Hill & Lower Queen Anne:
Average Daily Costs & Annual Percent Change, 1989-1999

	Zone	1989 Weighted Avg	1992 Weighted Avg	89-92 Percent Change	1994 Weighted Avg	92-94 Percent Change	1996 Weighted Avg	94-96 Percent Change	1999 Weighted Avg	96-99 Percent Change	*89-99 Percent Change*
First Hill	**14**	$ 4.86	$ 4.57	-2.0%	$ 4.82	2.7%	$ 6.59	16.9%	$ 11.93	21.9%	*9.4%*
	15	$ 5.59	$ 7.08	8.2%	$ 5.55	-11.5%	$ 6.59	9.0%	$ 10.54	16.9%	*6.5%*
	16	$ 6.75	$ 9.10	10.5%	$ 6.13	-17.9%	$ 6.24	0.9%	$ 10.27	18.1%	*4.3%*
	TOTAL	$ 5.54	$ 6.55	5.7%	$ 5.50	-8.4%	$ 6.48	8.5%	$ 11.14	19.8%	*7.2%*
Queen Anne	**17**	$ 2.18	$ 2.51	4.8%	$ 2.47	-0.8%	$ 2.58	2.2%	$ 5.25	26.7%	*9.2%*
	18	$ 3.52	$ 4.73	10.4%	$ 4.21	-5.7%	$ 6.35	22.8%	$ 5.71	-3.5%	*4.9%*
	19	$ 3.89	$ 5.40	11.6%	$ 5.03	-3.5%	$ 6.65	15.0%	$ 7.48	4.0%	*6.8%*
	TOTAL	$ 3.54	$ 4.77	10.5%	$ 4.36	-4.4%	$ 6.16	18.9%	$ 6.39	1.2%	*6.1%*

Table 12
First Hill & Lower Queen Anne:
Average Monthly Costs & Annual Percent Change, 1989-1999

	Zone	1989 Weighted Avg	1992 Weighted Avg	89-92 Percent Change	1994 Weighted Avg	92-94 Percent Change	1996 Weighted Avg	94-96 Percent Change	1999 Weighted Avg	96-99 Percent Change	*89-99 Percent Change*
First Hill	**14**	$ 68.76	$ 76.41	3.6%	$ 76.55	0.1%	$ 75.75	-0.5%	$ 117.46	15.7%	*5.5%*
	15	$ 39.77	$ 52.96	10.0%	$ 60.10	6.5%	$ 60.32	0.2%	$ 68.33	4.2%	*5.6%*
	16	$ 42.64	$ 52.25	7.0%	$ 60.48	7.6%	$ 65.28	3.9%	$ 69.55	2.1%	*5.0%*
	TOTAL	$ 46.86	$ 59.49	8.3%	$ 64.19	3.9%	$ 66.96	2.1%	$ 89.08	10.0%	*6.6%*
Queen Anne	**17**	$ 26.87	$ 29.09	2.7%	$ 25.67	-6.1%	$ 34.64	16.2%	$ 51.24	13.9%	*6.7%*
	18	$ 34.67	$ 37.11	2.3%	$ 40.02	3.8%	$ 46.35	7.6%	$ 55.73	6.3%	*4.9%*
	19	$ 41.68	$ 54.84	9.6%	$ 53.35	-1.4%	$ 62.82	8.5%	$ 91.39	13.3%	*8.2%*
	TOTAL	$ 35.79	$ 42.30	5.7%	$ 40.95	-1.6%	$ 54.06	14.9%	$ 71.76	9.9%	*7.2%*

Since 1996, most costs have gone up greatly, particularly daily costs (Table 13). The 19.8 percent increase for the First Hill area is larger than all but three of the zones in the entire study area, influenced primarily by the large facilities connected with hospitals and medical clinics. Zone 17 had the largest increase in daily rates of any zone, 26.7 percent, mostly due to a large number of employee parking lots that charged $6 a day but did not report any daily rates in 1996.

The only zone with decreased costs was zone 18, where average 2-hour costs went from $5.56 in 1996 to $4.90 in 1999. The lowering of 2-hour rates from $6 to $4 at the large Seattle Center facility on Roy Street accounts for nearly all the decrease.

Table 13
First Hill & Lower Queen Anne: Percent of Pay Lots that Raised or Lowered Prices and Average Price Change in Dollars, 1996-1999

		1996-1999					
		2-Hour		Daily		Monthly	
First Hill	Up	47.5%	$ 1.46	70.2%	$ 3.26	96.7%	$ 16.74
	Down	5.0%	$ 0.75	14.9%	$ 2.00	3.3%	$ 5.00
	No change	47.5%		14.9%			
Queen Anne	Up	60.8%	$ 1.58	56.7%	$ 2.37	93.8%	$ 20.27
	Down	15.7%	$ 1.70	15.0%	$ 1.44	6.3%	$ 11.00
	No change	23.5%		28.3%			

Figures 9 and 10 on the next page illustrate the changes in average parking costs in First Hill and lower Queen Anne.

Figure 9
First Hill: Change in Average Parking Costs, 1989-1999

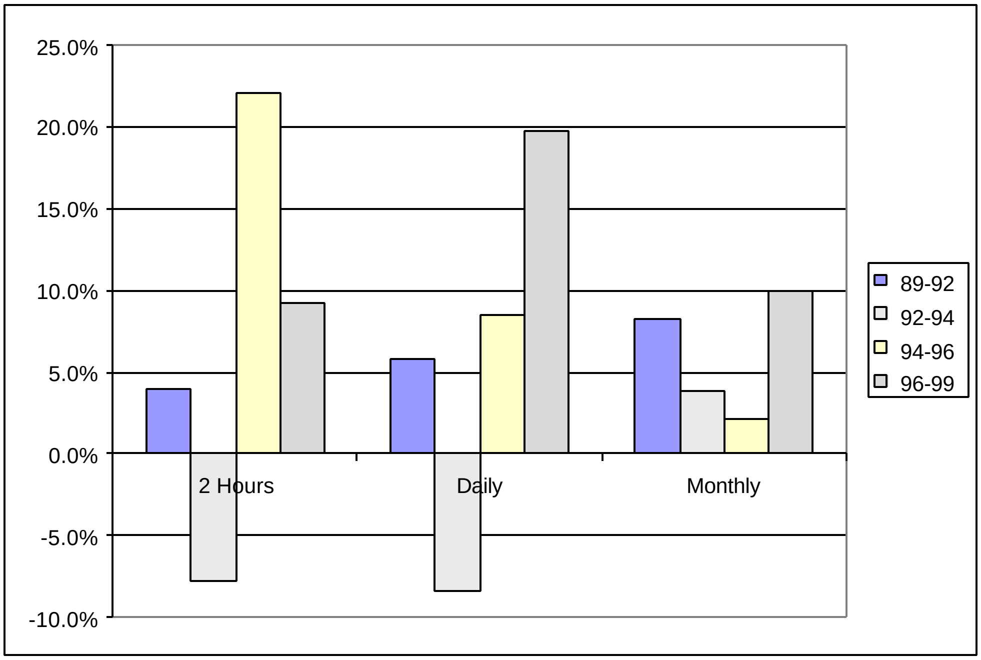
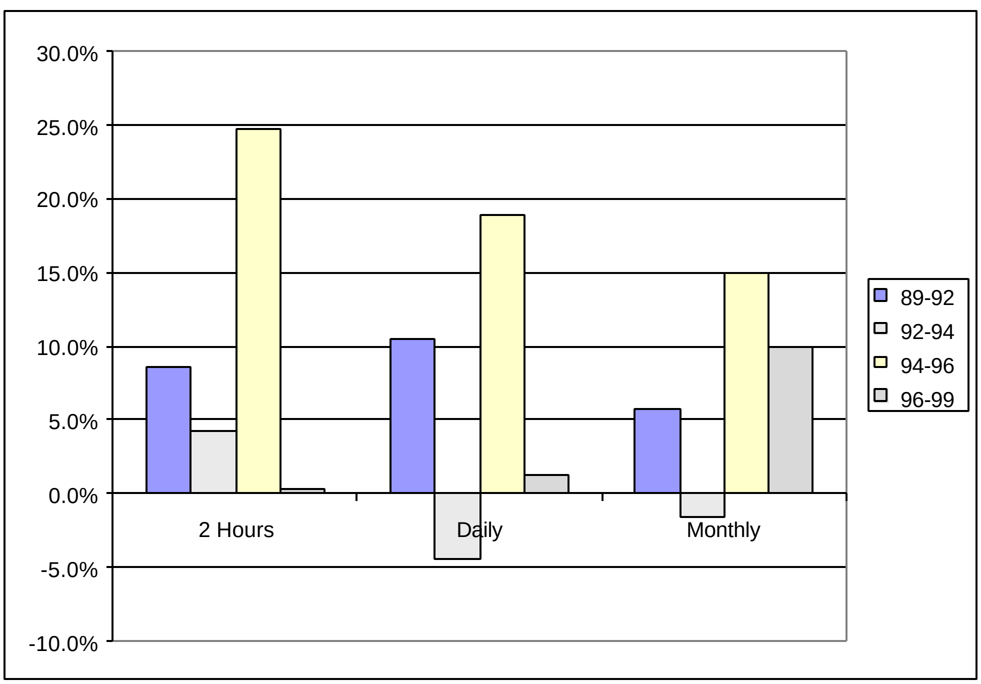


Figure 10
Queen Anne: Change in Average Parking Costs, 1989-1999



Parking Type

The number of stalls by parking type is displayed in Table 14. The table shows the percent of stalls by type --“employee”, “customer”, and “other” (primarily general public parking) in three categories: all parking, pay lots, and missing. “Pay lots” have a charge for parking, whether short-term (2-hour or daily) or long-term (monthly). Most public parking provides short-term rates, usually both 2-hour and daily, and many also have monthly rates. Employee parking is generally long-term and provides either daily or monthly rates or both. “Customer” parking is by definition short-term free parking, and where posted, usually with time limits of an hour or less.

The “Missing” category includes lots where any possible costs are unknown or unobtainable at the time of the inventory. Unlike in the CBD, no residential parking was inventoried in these two areas. “Employee” parking identified by the inventory is single use parking restricted to the employees of the business or organization that owns or leases the parking facility. Such dedicated use facilities are mostly found in the peripheries of downtown, where real estate costs and zoning make them feasible. Employee parking in “Other” (public) lots, which may provide special employee rates, were not included in the inventory.

Lower Queen Anne has a much higher percentage of customer parking than the rest of downtown. This area, the furthest removed from the downtown core, has numerous retail and fast food establishments that provide customer parking. It also has the highest proportion of dedicated employee parking. More than half of the parking in zone 17 is employee; this zone is dominated by light industry and warehouses and by such large employers as the Seattle Times and Safeco.

Table 14
First Hill & Lower Queen Anne: Parking by Type, 1999

Parking Zone		Pay Lot			Missing			All Parking			
		Pct of Total		**Total Stalls**	Pct of Total		**Total Stalls**	Percent of Total			**Total Stalls**
		E	O		E	O		C	E	O	
First Hill	**14**	2.2%	97.8%	**3619**	14.5%	85.5%	**567**	2.6%	3.7%	93.6%	**4299**
	15	41.2%	58.8%	**3010**	88.1%	11.9%	**496**	1.2%	47.3%	51.5%	**3547**
	16	13.3%	86.7%	**2239**	21.2%	78.8%	**515**	4.0%	14.2%	81.9%	**2868**
	Total	18.2%	81.8%	**8868**	39.8%	60.2%	**1578**	2.5%	21.0%	76.5%	**10714**
Queen Anne	**17**	35.4%	64.6%	**929**	87.4%	12.6%	**2247**	22.7%	55.8%	21.5%	**4108**
	18	3.5%	96.5%	**3348**	93.9%	6.1%	**1748**	12.4%	30.2%	57.3%	**5819**
	19	8.0%	92.0%	**3372**	80.1%	19.9%	**2745**	6.7%	37.7%	55.7%	**6555**
	Total	9.3%	90.7%	**7649**	86.2%	13.8%	**6740**	12.7%	39.6%	47.7%	**16482**

IV. BELLEVUE INVENTORY

A. STUDY AREA

The Bellevue study area is bounded on the west by 100th Ave NE; on the north by NE 12th; on the east by 116th Ave NE; and on the south by Main Street (Figure 11). The survey included all businesses on the south side of Main Street that have access to that street and are an integral part of the downtown business district.

The CBD is divided into seven zones. The streets dividing the zones are Main Street, NE 8th Street, 108th Ave NE, and Interstate 405. In the three inventories before 1994, there were six zones; zone 80 (between I-405 and 116th Avenue NE) was part of zones 62 and 63, with NE 8th being the dividing line. In order to allow the data to be grouped in a more logical way, the PSRC, at the suggestion of the Bellevue Engineering Department, decided that the area to the east should be a separate zone. Creating this new zone provides a more accurate picture of parking throughout the downtown area. Data from the previous inventories were adjusted to match the new zonal structure.

B. METHODOLOGY

Data collection was conducted between May 14 and May 23, 1999, with the same staff used to conduct the Seattle inventory. The inventory was conducted Monday through Friday between 9:30-11:30 AM and between 1:30-3:30 PM.

Where it was not possible to physically count the spaces and cars in a particular lot, information was obtained from parking attendants, if present, or from the owner of the lot. This was necessary only for a few pay parking garages, where operators would not allow entry to PSRC staff. Monthly rates for many of the large facilities were obtained from the monthly Downtown Bellevue Parking Survey conducted by TransManage. Because of the large size of the Bellevue Square parking facilities, the PSRC relied on statistics concerning capacity and usage that are maintained by Bellevue Square management.

Data collected for each parking lot includes census tract and block number, parcel number, owner or manager, address, total stalls, morning and afternoon occupancy, cost for two-hour, daily, and monthly parking, and type of parking.

Parking type was used to analyze free parking and classified as:

- C -- free customer;
- E – employee;
- R – reserved, often by permit; or
- O – pay public parking.

Figure 11
Bellevue CBD Study Area, 1996 Parking Inventory

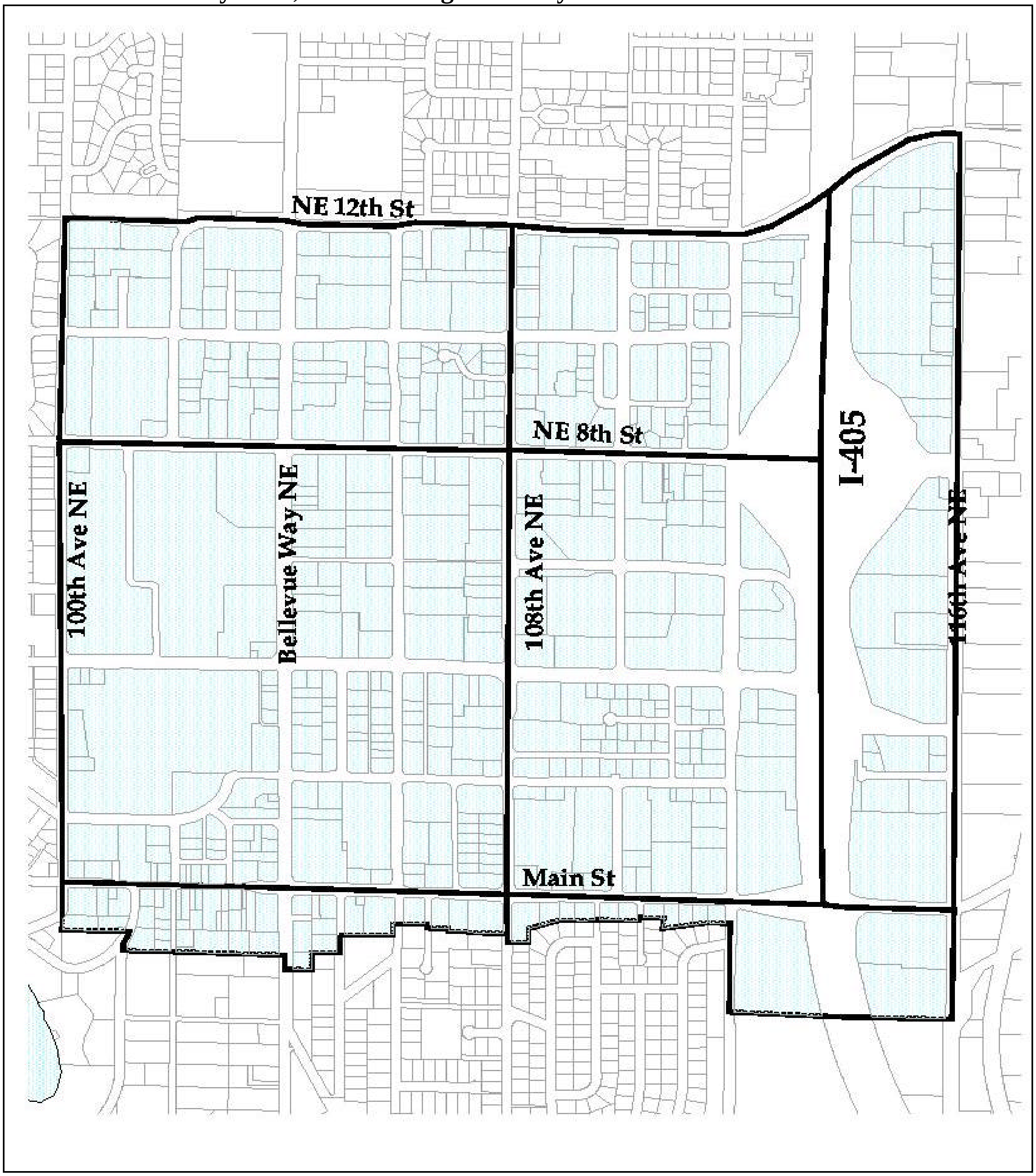
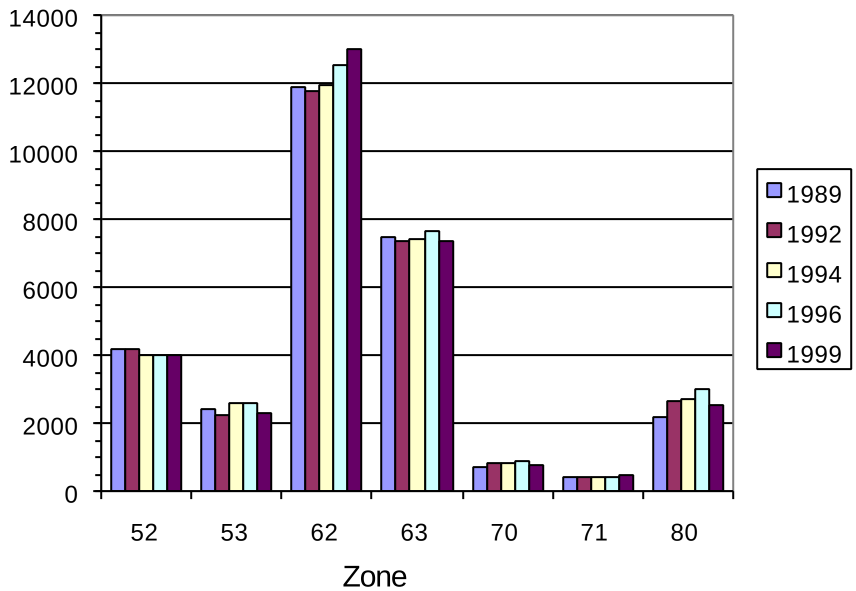


Figure 12
Bellevue CBD: Parking Availability by Zone, 1989-99



C. FINDINGS

Total Stalls

Table 15 presents the total number of parking stalls by zone and shows the percent change between each survey since 1989. The number of stalls by zone for each inventory is illustrated in Figure 12.

The total number of parking stalls counted was 30,387, a small but misleading decrease from 1996 (31,093 stalls). After a spurt of new office tower construction in the late 1980s, which provided a number of large parking facilities, the inventory of parking stalls in downtown Bellevue stabilized, with an annual growth rate between 1989 and 1994 of under one percent. Between 1994 and 1996 the annual rate increased to two percent, largely because of the addition of 600 new spaces at Bellevue Square. There have been a number of new construction projects since then, but because they either replaced existing parking or were not completed at the time of the inventory, the overall supply actually went down over the past three years. New facilities include Bellevue Galleria and Pacific Center. New residential construction in Zone 53 removed some public parking from the inventory, while total available parking at Overlake Hospital has been temporarily reduced because of current construction.

Despite scores of small to medium-sized surface lots spread throughout the CBD, a few large parking structures account for approximately half of all parking. These include Bellevue Square (6,000 spaces in zone 62), Bellevue Place-Hyatt Regency (1,500 spaces, zone 52), and Plaza

Center at NE 8th and 108th NE (1,100 spaces, zone 53. Many of the large parking structures are office towers along 108th Avenue. East of I-405, Overlake Hospital on the north and the municipal complex (city hall, police department) on the south account for half of all parking in zone 80.

Table 15
Bellevue CBD: Total Stalls and Annual Percent Change, 1989-1999

	1989	1992	89-92	1994	92-94	1996	94-96	1999	96-99	89-99
Parking Zone	Total Stalls	Total Stalls	Annual % Change	Total Stalls	Annual % Change	Total Stalls	Annual % Change	Total Stalls	Annual % Change	Annual % Change
52	4201	4168	-0.3%	3991	-1.4%	3999	0.1%	3,998	0.0%	-0.5%
53	2409	2254	-2.2%	2583	4.6%	2607	0.5%	2,291	-6.3%	-0.5%
62	11901	11789	-0.3%	11933	0.4%	12558	2.6%	12,985	1.7%	0.9%
63	7470	7350	-0.5%	7392	0.2%	7627	1.6%	7,371	-1.7%	-0.1%
70	706	808	4.6%	852	1.8%	872	1.2%	740	-7.9%	0.5%
71	405	416	0.9%	429	1.0%	426	-0.4%	456	3.5%	1.2%
80	2161	2662	7.2%	2731	0.9%	3004	4.9%	2,546	-7.9%	1.7%
Total	29253	29447	0.2%	29911	0.5%	31093	2.0%	30,387	-1.1%	0.4%

Occupancy and Type of Parking

Occupancy rates increased since 1996, from 61.1 percent to 63.6 percent, annual increase of 2 percent (Table 16). Occupancy is the highest in the past decade, due both to the strong economy and the lack of an increase in the supply of parking. The areas with the highest proportion of customer parking, zones 52 and 62, had the lowest occupancy while those where office buildings contribute the majority of parking and which contain much of the long-term parking in downtown Bellevue (zones 53 and 63), occupancy is considerably higher. These two areas also experienced the greatest increase in the occupancy rates since 1996.

Zones 52 and 62 saw occupancy rates decrease slightly (down 2.4 and .01 percent respectively), even though the parking supply in those zones remained stable. However, since short-term parking is influenced by the time of day, weather, and the day of the week, there may be more variability in the occupancy rate in the Bellevue CBD than in other areas. Thus, comparisons over time may not be as reliable as in areas with more long term-parking.

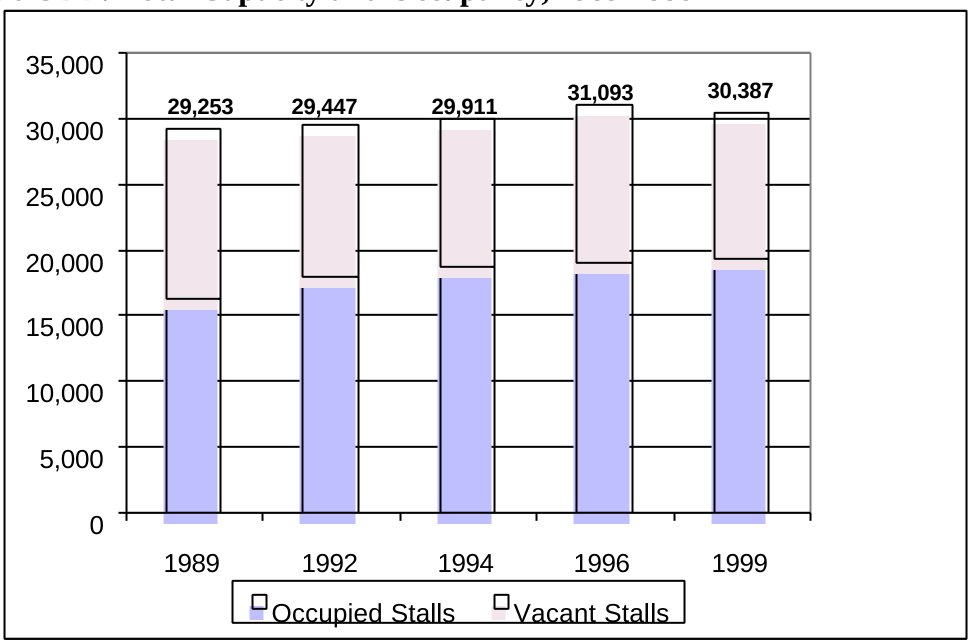
Most of the parking in the CBD (64.8 percent, Table 18) is for short-term/customer parking, a noticeable drop from the 70 percent in 1996. As mentioned above, more of the inventory in the Bellevue CBD is being contributed by pay parking garages in office buildings at the same time that new residential buildings are replacing many small parking lots.

Table 16
Bellevue CBD: Occupancy Rates and Annual Percent Change, 1989-1999

	1989	1992	89-92	1994	92-94	1996	94-96	1999	96-99	89-99
Parking Zone	Occ. Rate (%)	Occ. Rate (%)	Annual % Change	Occ. Rate (%)	Annual % Change	Occ. Rate (%)	Annual % Change	Occ. Rate (%)	Annual % Change	Annual % Change
52	41.3%	61.8%	14.4%	66.4%	2.4%	66.7%	0.2%	63.5%	-2.4%	4.4%
53	57.8%	68.0%	5.6%	67.9%	0.0%	67.9%	0.0%	76.9%	6.4%	2.9%
62	55.4%	55.5%	0.1%	58.4%	1.7%	56.6%	-1.6%	56.5%	-0.1%	0.2%
63	59.2%	65.2%	3.3%	66.5%	0.7%	63.2%	-2.5%	73.9%	8.1%	2.2%
70	57.9%	49.4%	-5.2%	54.3%	3.2%	48.1%	-6.0%	46.5%	-1.6%	-2.2%
71	59.0%	55.8%	-1.9%	49.2%	-4.1%	54.5%	5.2%	58.3%	3.5%	-0.1%
80	67.0%	70.7%	1.8%	61.8%	-4.4%	66.1%	3.4%	64.6%	-1.2%	-0.4%
Total	55.5%	61.0%	3.2%	62.4%	0.7%	61.1%	-1.0%	63.6%	2.0%	1.4%

Figure 13 compares the total capacity with occupancy in the Bellevue CBD from 1989 to 1999.

Figure 13
Bellevue CBD: Total Capacity and Occupancy, 1989-1999



Parking Costs

Average parking costs in Bellevue are shown in Table 17. The averages are based only on those lots with any type of known costs (7.6 percent of all lots.) Because of the small number of pay lots in the CBD, comparisons of average costs over time are only meaningful at the CBD level and not at the level of the individual parking zones. Even at that level, one or two large garages can have a significant effect on the downtown averages. Overall, parking rates in the Bellevue CBD are in line with similar parking in the Seattle CBD outside the downtown core.

Table 17
Bellevue CBD: Average Parking Costs and Annual Pct Change, 1989-1999

	1989 Weighted Avg	1992 Weighted Avg	1994 Weighted Avg	1996 Weighted Avg	1999 Weighted Avg	96-99 Annual % Change	89-99 Annual % Change
0-2 Hours	$ 2.18	$ 2.14	$ 2.36	$ 2.46	$ 3.78	15.4%	5.7%
Daily	$ 6.01	$ 6.58	$ 6.55	$ 6.90	$ 11.21	17.6%	6.4%
Monthly	$ 54.28	$ 63.06	$ 67.47	$ 74.78	$ 105.51	12.2%	6.9%

All rates have increased significantly since 1996, echoing the steep rise in parking rates that downtown Seattle has experienced and far greater than any rate of increase at any time during the past decade. After a slow but steady increase in costs from 1989 to 1996, the CBD since 1996 saw 2-hour rates jump an average of $1.45 and daily rates an average of $4.61. These increases are comparable to those in the Seattle CBD ($1.91 and $3.73, respectively). While average monthly rates rose less sharply than those in Seattle ($17.76 compared to $40.63), it still represents a substantial increase during the last three years compared to the rest of the decade.

Table 18 shows the percent of pay and free stalls by year, and the average occupancy for each. Because there are so few pay lots in individual zones, CBD totals are used. Pay stalls have gone from around 30-31 percent of all CBD parking through 1996 to more than 35 percent. The great majority of new parking added since 1989 has been pay stalls.

Table 18
Bellevue CBD: Pay and Free Parking Stalls, 1989-1999

		Pay Stalls			Free Stalls		
Year	Total Stalls	Number of Stalls	*Percent of Total*	Occupancy Rate (%)	Number of Stalls	*Percent of Total*	Occupancy Rate (%)
1989	29,392	8,859	*30.1%*	61.2%	20,533	*69.9%*	53.0%
1992	29,447	8,952	*30.4%*	75.2%	20,495	*69.6%*	54.8%
1994	29,911	9,331	*31.2%*	77.0%	20,580	*68.8%*	55.7%
1996	31,093	9,584	*30.8%*	76.6%	21,933	*70.5%*	54.6%
1999	30,387	10,695	*35.2%*	82.2%	19,692	*64.8%*	53.5%

APPENDIX

METHODOLOGY FOR THE 1999 PARKING INVENTORY

Scope of Study

Data for the study was collected between April 12, 1999, to June 11, 1999. Traditionally, travel and transportation data related to commuting behavior are collected in the spring or fall, when travel patterns are more stable. The four earlier surveys were conducted in April and May and a comparable period was desired.

The types of parking inventoried included:

- off-street parking, both public and private;
- free and pay parking;
- carpool and vanpool lots;
- motor pool parking, both private and government;
- hotels and motels;
- short-term customer parking such as convenience stores and restaurants; and
- residential parking in the Seattle CBD only.

Types of parking excluded from the study were:

- on-street parking;
- new and used auto and truck sales lots;
- parking occupied by police, fire, and emergency vehicles;
- car rental lots;
- Metro bus and van storage lots;
- parking associated with auto and truck repair shops; and
- residential parking in the First Hill, lower Queen Anne, and Bellevue CBD areas

Data Collection

The data collection team surveyed the Seattle zones on foot. The Bellevue zones were surveyed primarily by vehicle. Surveys were conducted Monday through Friday between the hours of 9:30 a.m. and 11:30 am, and 1:30 p.m. and 3:30 p.m. Each lot was surveyed during one morning and one afternoon period, on the same day, when possible. Each parking lot was coded to a 1990 census tract and block number in which it was located. The information collected included the lot address, owner/tenant, total number of stalls, morning and afternoon occupancy, type of parking, cost, and comments (Figures 14 and 15). In Bellevue, the parcel number was also recorded. We attempted to inventory the Kingdome, the Seattle Center, and the Washington State Convention and Trade Center during an "average weekday", when no special events were taking place.

Occupancy

Two occupancy counts were taken at each lot, one in the morning and one in the afternoon. The morning count took place between 9 and 11:30 am; the afternoon count could take place 1 and 3:30 pm. These times were chosen because they are the times when parking utilization is most stable during a weekday. By 9 am, the morning commuter rush hour has essentially ended and shoppers have begun to arrive. After 3:30 pm, commuters begin to leave downtown. No counts were taken during the lunch hour because of high turnover at that time.

The occupancy rate is the average of the morning and afternoon counts, divided by the total number of stalls. The more counts for each lot, the more accurate the occupancy measures. However, the cost of the survey also increases substantially. A single count for each lot could introduce bias because of a difference in parking activity between the morning and afternoon. The PSRC determined that making two counts, during different parts of the day, was a reasonable compromise between accuracy and cost. These figures should be evaluated with this limitation in mind.

Parking Costs

Three cost figures were sought at each lot: the two-hour cost, the daily cost, and the monthly cost. The PSRC collected costs for only the normal workweek: Monday through Friday, 9:00 a.m. to 5:00 p.m.

Two-hour rates were used as a way to standardize short-term parking rates. These can vary greatly, with a minimum time ranging from 1/2 hour to an hour and a half. Parking lots will also charge for additional time past the minimum at increments of 1/2 hour and 1 hour. Where there was no posted 2-hour rate, the data collectors computed a 2-hour equivalent based on the minimum time plus incremental times that add up to two hours.

If the minimum time was greater than two hours, then only a daily rate was recorded, using either the posted daily rate, if any, or an equivalent daily rate based on increments of the minimum rate that add up to six hours.

Many lots in outlying areas had only monthly rates, which were not posted, and a follow-up phone call was required. When more than one monthly rate was available, either an average rate, weighted by number of stalls, was recorded, or the most predominant rate was used. Alternative rates were recorded as comments.

Special discounted rates were not included in any of the studies. These include employer subsidies, group discounts, special coupons, and "early bird" rates. Special rates for carpools and vanpools were not used unless the lots were used exclusively by either carpools or vanpools.

The 1999 study differentiated between four types of parking in the Seattle CBD:

- pay parking;

- residential parking;
- free short-term customer parking, such as convenience stores and restaurants;
- other parking, primarily employee or tenant parking.

For analysis, parking was categorized as customer (C), residential (R), and other (O), the latter including public pay, employee, and tenant (non-residential) parking.

In the First Hill and lower Queen Anne areas, all residential parking, both free and pay, was excluded from the study. In these areas, three types of parking were differentiated:
- pay parking;
- free short-term customer parking;
- other parking, primarily employee or tenant parking.

As with the CBD, pay and other parking were combined for analysis.

Where monthly employee or tenant parking rates could be obtained, those were included in the analysis of pay parking. Otherwise, no separate analysis was done on parking specifically designated as "employee", either because it was not always possible to determine the exclusive purpose of a parking facility or because a facility may combine employee and other types of parking with no physical differentiation.

In the Bellevue CBD, parking was recorded as any of three types:
- pay parking;
- free short-term customer parking;
- reserved or exclusively employee or tenant parking.

"Free" parking was determined on the basis of cost to the user. The exception was free employee parking subsidized by an employer. In this case, an attempt was made to find out the price paid by the employer to the parking facility owner. Free parking included parking facilities that were clearly free-of-charge, as well as parking stalls included with the price of a condominium (zones 1_13 only), parking included at no extra cost with an apartment rental (zones 1_13 only), and parking included in a commercial lease and offered at no cost to employees or customers.

Parking Cost averages for the study area were computed for only those lots with some known cost, whether hourly, daily, or monthly. Costs were weighted by the number of stalls in a pay lot. In lots with mixed hourly, daily, and monthly leasing, separate weighting of costs was usually not possible. For lots with only monthly parking rates, no daily or 2-hourly cost was computed. All parking costs are reported in current dollars and have not been adjusted for inflation. These factors affect the average costs reported.

Figure 14
1999 Data Collection Form for Seattle

1996 PARKING INVENTORY, SEATTLE CBD Interns: ____ Date: _______________

ZONE 1

TRACBLK	LOCATION	TYPE	******** COST ********* 0-2	DAILY	MONTH	96 MAX.	**** OCCUPANCY **** MAX.	AM	PM	HAND-ICAP	EARLY BIRD TIME	COST	COMMENTS
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												
ID= OWNER=	Lot #:												

Figure 16
1996 Data Collection Form for Bellevue

1999 PARKING INVENTORY, BELLEVUE CBD Interns: ____ Date: ________________

MAP 52

				******** COST *********			96	**** OCCUPANCY ****				
ID #	TRACKBLK	PARCEL	TYPE	0-2	DAILY	MONTH	MAX.	MAX.	AM	PM	PM	COMMENTS
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											
# ADDRESS= OWNER=	23802											

Parking Database

Each parking lot was entered as a separate record into a SPSS dataset.

Some lots were divided into two separate records if the parking was segregated for two different price structures or uses. Each record was assigned a unique identifier, called PARKID. Figures 17 and 18 show the file structures of the SPSS datasets for Seattle and Bellevue.

The parking database contains:
- 1999 parking inventory data;
- 1996 parking inventory data; and
- location and ownership of parking lot.

The 1999 parking inventory data is consistent with the 1996 parking inventory data in file structure, variables, and data collection method. No corrections were made to earlier surveys.

Figure 17
1999 Parking Database – Seattle File Structure

SYSFILE INFO: P:\PARKING\Parking99\analysis\Seattle, v4.sav

File Type:	SPSS Data File
Creation Date:	16-Mar-00
Creation Time:	11:30:20
Label:	Not Available
N of Cases:	1144
# of Named Variables:	37

Variable Information

Name	Description	Position	Measurement Level	Format
ID	Sequential record number (sorted by PSRCID	1	Scale	F11
PSRCID	Parking record ID number	2	Nominal	A4
ZONE	Parking Zone	3	Ordinal	F2
AREA	Parking area	4	Scale	F1

Value	Label
1	CBD
2	First Hill
3	Queen Anne

Name	Description	Position	Measurement Level	Format
TRACT	1990 Census Tract number	5	Ordinal	F6.2
BLOCK	1990 Census Block number	6	Nominal	A4
TTBBBA	Tract # (root only) + Block #	7	Nominal	A6
LOT	Lot number (unique within block)	8	Ordinal	F2
UPDATE	Update code	9	Nominal	A2
ADDRESS	Lot address	10	Nominal	A35
LOCATION	Lot location	15	Nominal	A50
OWNER	Owner/operator of lot	22	Nominal	A50
TYPE	Type of parking	29	Nominal	A2
PAY	Pay lot	30	Scale	F2

Value	Label
0	Free
1	Pay lot
2	Residential
3	Missing

Name	Description	Position	Measurement Level	Format
HOURLY	Parking cost for 0-2 hours	31	Scale	DOLLAR
DAILY	Parking cost for day (6-10 hours)	32	Scale	DOLLAR
MONTH	Parking cost for month	33	Scale	DOLLAR
MAX	Maximum capacity	34	Scale	F5
AM	Morning occupancy (9-11:30 am)	35	Scale	F5
PM	Afternoon occupancy (1-3:30 pm)	36	Scale	F5
HANDI	Marked handicap parking	37	Scale	F5
ELYTIME	Early Bird special time (i.e. `In before...')	38	Nominal	A7

Figure 18
1999 Parking Database – Bellevue File Structure

SYSFILE INFO: P:\PARKING\Parking99\analysis\Bellevue, v2.sav

File Type:	SPSS Data File
Creation Date:	5-Apr-00
Creation Time:	14:53:45
Label:	Not Available
N of Cases:	415
# of Named Variables:	29

Variable Information

Name	Description	Position	Measurement Level	Format
ID	ID	1	Scale	F11
PSRCID	PSRCID	2	Scale	F11
MAP	Parking Zone	3	Ordinal	F6
TRACT	1990 Census Tract number	4	Ordinal	F11
BLOCK	1990 Census Block number	5	Scale	F4
PRCL	Parcel number	6	Scale	F11
SCT	Parcel section	7	Nominal	A1
PRCL2	Parcel + section	8	Nominal	A4
U	Update code	9	Nominal	A1
ADDRESS	Lot address	10	Nominal	A40
LOCATION	Lot location	15	Nominal	A50
OWNER	Owner/operator of lot	22	Nominal	A50
TYPE	Type of parking	29	Nominal	A1
HOURLY	Parking cost for 0-2 hours	30	Ordinal	DOLLAR6.2
DAILY	Parking cost for day (6-10 hours)	31	Ordinal	DOLLAR6.2
MONTH	Parking cost for month	32	Ordinal	DOLLAR7.2
COST	Pay or Free parking	33	Ordinal	F1

Value	Label
1	Pay Stalls
2	Free Stalls

Name	Description	Position	Measurement Level	Format
MAX	Maximum capacity	34	Scale	F11
AM	Morning occupancy (9-11:30 am)	35	Scale	F11
PM	Afternoon occupancy (1-3:30 pm)	36	Scale	F11
HANDI	Marked handicap parking	37	Ordinal	F11
HOUR96	1996 hourly rate	38	Ordinal	DOLLAR6.2
DAILY96	1996 daily rate	39	Ordinal	DOLLAR6.2
MONTH96	1996 monthly rate	40	Ordinal	DOLLAR7.2
MAX96	1996 capacity	41	Scale	F11
AM96	1996 am occupancy	42	Scale	F11
PM96	1996 pm occupancy	43	Scale	F11
COMMENTS	Comments	44	Nominal	A255
COMMNT96	1996 Comments	76	Nominal	A255
PHONE	Phone number of owner/operator	108	Nominal	A15