

# DRAFT

**Department of Transportation (DOT)  
Division of Parking Management  
FY13 Parking Survey Summary**

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# DRAFT

# FY13 DOT Parking Survey Overview

- **Purpose:** Gauge the current performance of the public parking system from customers' perspective
- **Audience:** Permit Holders, Visitor/Transient Parkers, Business Owners  
FY13: Permit Holders 1,002; Visitor Parkers 808; Business Owners 178; On Street 18\*  
(FY11: Permit Holders 1,178; Visitor Parkers 937; Business Owners 79; On Street 108)
- **Time of Day:** 7:00AM-12:00PM & 3:00PM-7:00PM (parkers)  
11:00AM-7:00PM (business owners)
- **Dates Administered:** October 8 and 9, 2013 (Bethesda and Silver Spring)  
October 17 and 18, 2013 (Wheaton and Mont. Hills)
  - **NOTE:** During this timeframe, the federal government was shut down making this period unusual. However, the number of survey respondents was similar to the FY11 survey.
- **Methodology:** Contractor personnel circulated through each parking district and each block between 7:00AM and 7:00PM during a typical weekday in an effort to meet and interview representative business owners/managers.



\*For the 2013 survey, on street parkers were not separated out from the visitor or permit parkers. On Street parking was only captured in the Wheaton Parking District.

# FY13 DOT Parking Survey Analysis Methodology

- **CountyStat received the raw survey data from the Division of Parking Management**
- **CountyStat validated and cleaned the data by:**
  - Any response that was blank or recorded as “5 - No Opinion” was excluded from the calculated average and total number of respondents for each question
  - Any response that was not properly recorded was excluded:
    - 1 response for Bethesda Garage 42 regarding the ease of obtaining a monthly permit was removed as the answer was recorded as “45”
    - 1 response for Silver Spring Garage 7 regarding the cost of parking was removed as the answer was recorded as “8”
    - 1 response for Silver Spring Garage 60 regarding renewal method was removed as the answer was recorded as “1”
- **In determining a statistically significant difference between averages, CountyStat used an unpaired t-test and used a 95% confidence level ( $\alpha=0.05$ )**



## DOT FY13 Parking Survey Analysis

**DRAFT**

<b>Business: Parking Customer Service Survey</b>	
<b>Business Information</b>	
Address (Block) _____	
Type of Business      Office <input type="checkbox"/> Retail <input type="checkbox"/> Restaurant <input type="checkbox"/> Other <input type="checkbox"/>	
Please check one:      Owner <input type="checkbox"/> Tenant <input type="checkbox"/>	
Type of Business _____	
Average number of employees on a typical day _____	
Employees' average length of stay on a typical day _____	
Customers' average length of stay on atypical day _____	
Busiest day(s) of the week:	
Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed <input type="checkbox"/> Thurs <input type="checkbox"/> Fri <input type="checkbox"/> Sat <input type="checkbox"/>	
Busiest time of day:	
Before 9am <input type="checkbox"/> 9am-11am <input type="checkbox"/> 11am-1pm <input type="checkbox"/> 1pm-5pm <input type="checkbox"/> After 5pm <input type="checkbox"/>	
Do you provide parking for your employees?      Yes <input type="checkbox"/> No <input type="checkbox"/>	
Do you provide parking for your customers/visitors?      Yes <input type="checkbox"/> No <input type="checkbox"/>	
Do your employees or customers park in a Montgomery County parking space and if so where?	
Employees :      On-St _____, Surface Lot _____, Garage _____	
Customers/Visitors :      On-St _____, Surface Lot _____, Garage _____	
<b>Unless otherwise noted use the following scale to rate each question:</b>	
1. Disagree    2. Somewhat Disagree    3. Agree    4. No Opinion	
<b>Customer Surveys:</b>	
a. Their parking space is conveniently located <input type="checkbox"/>	
b. They believe that the parking facility/space was safe and secure <input type="checkbox"/>	
c. They believe that parking enforcement is fair <input type="checkbox"/>	
d. The parking space/facility was in good condition (clean, well lit, clear signage) <input type="checkbox"/>	
e. The parking facility was easy to navigate/maneuver within <input type="checkbox"/>	
f. Parking rates are fair <input type="checkbox"/>	
<b>Employee Surveys:</b>	
a. Their parking space is conveniently located <input type="checkbox"/>	
b. They believe that the parking facility/space was safe and secure <input type="checkbox"/>	
c. They believe that parking enforcement is fair <input type="checkbox"/>	
d. The parking space/facility was in good condition (clean, well lit, clear signage) <input type="checkbox"/>	
e. The parking facility was easy to navigate/maneuver within <input type="checkbox"/>	
f. Parking rates are fair <input type="checkbox"/>	

# DOT Division of Parking Services Headline Performance Measure

## Headline Measure:

Average Overall Customer (Permit Holder/Visitor) Satisfaction with Montgomery County Parking Facilities

## Description:

This measure reports the average customer satisfaction rating for both permit holders and visitor parkers along the following scale (1. Poor; 2. Fair; 3. Good; 4. Excellent) for Montgomery County Parking Facilities

## Results:

FY13 Value\*: **3.28**

FY11 Value: **3.41**

FY09 Value: **3.44**

As compared to the 2011 survey, overall satisfaction declined slightly by 3.8% in FY13. However, satisfaction remained above a “Good” rating.



\*The FY13 baseline value is the average of facility overall satisfaction scores found on slides 18 and 21

## FY13 DOT Parking Survey General Findings (1/3)

### *Business Survey (Employees and Customers)*

- In general, businesses surveyed rated fair enforcement the lowest and facility condition and safety highest
- Businesses are more likely to provide parking for their employees as compared to their customers
- In three of the four districts (Montgomery Hills being the outlier), customer attitudes towards the convenience of parking location to business increased by more the 5% since the previous survey
- Wheaton and Montgomery Hills businesses reported being busiest between 9-11AM while Silver Spring and Bethesda are busiest during the lunch and after 5PM hours
- Fridays and Saturdays remain popular days for the businesses surveyed



# FY13 DOT Parking Survey General Findings (2/3)

## *Visitor and Permit Holder Satisfaction*

- Overall, there was a slight halo effect when comparing parking facilities
  - When overall perceptions of a facility were high or low, each question asked about that facility was more likely to be high or low as well
  - This can be seen in slides 18 and 21 with the highest and lowest rated facilities having nearly every response be statistically significant
- Satisfaction for both groups, on average, was slightly lower than in the previous survey
  - In FY13, more facilities were included in the survey as more facilities had 15 or more respondents
  - This survey was performed during the federal government shutdown making this period unlike the survey period in previous years. It is unclear how the shutdown affected the overall survey results.
- Ease of Payment/Ease of Permit Renewal and Cost of Parking remain the two lowest categories across the County
- Visitors have a much higher opinion of Garage 5/55 in Silver Spring as compared to permit holders. It ranked #1 for visitors, but 14<sup>th</sup> for permit holders.



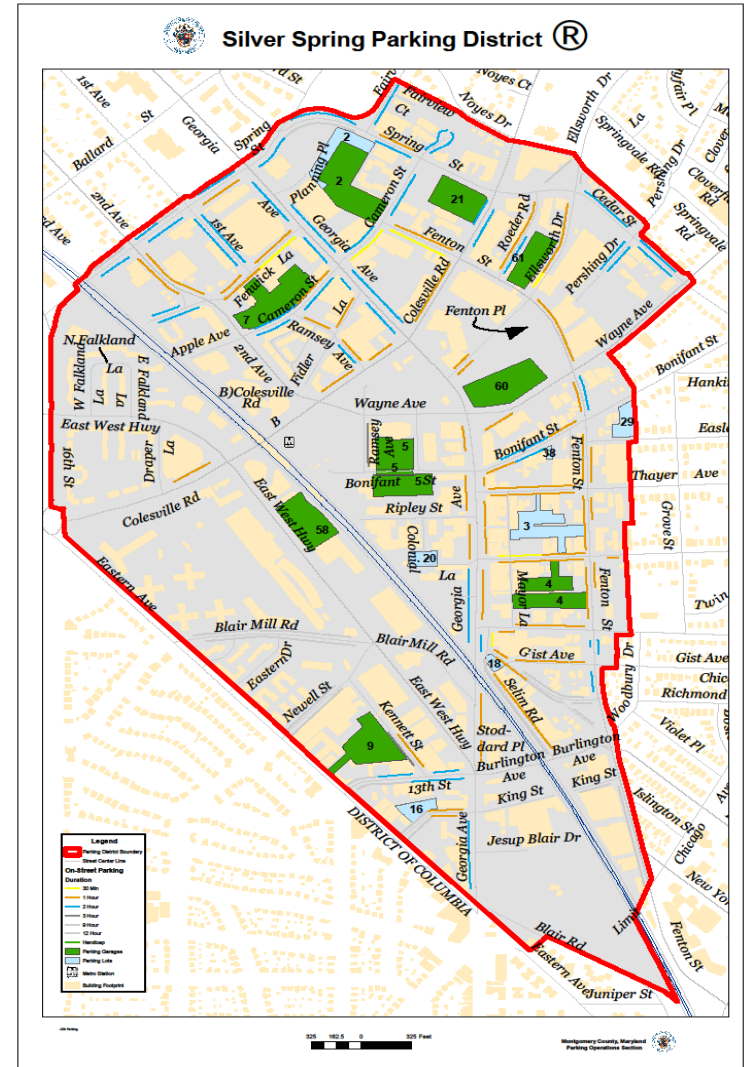
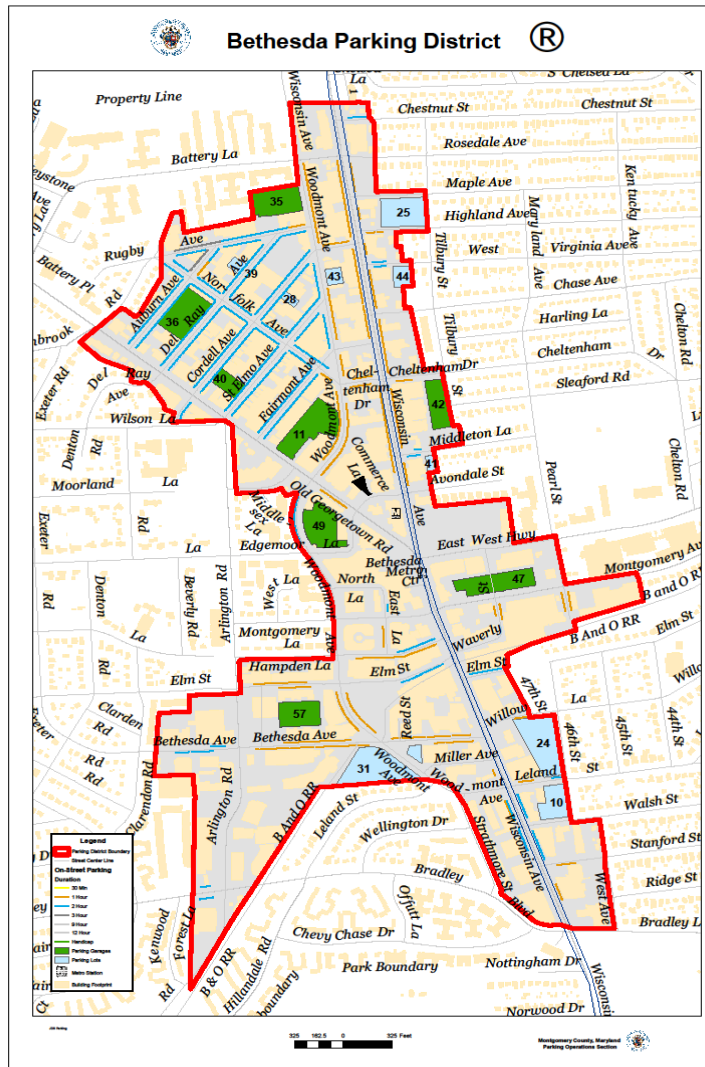
## FY13 DOT Parking Survey General Findings (3/3)

### *Impact of Facility Characteristics*

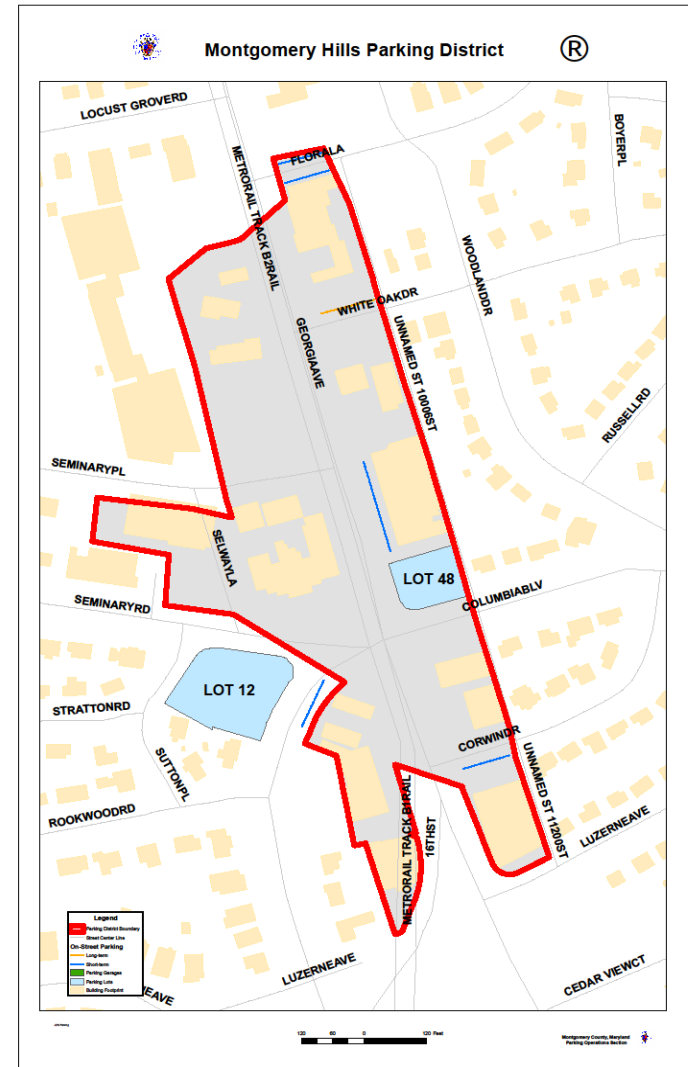
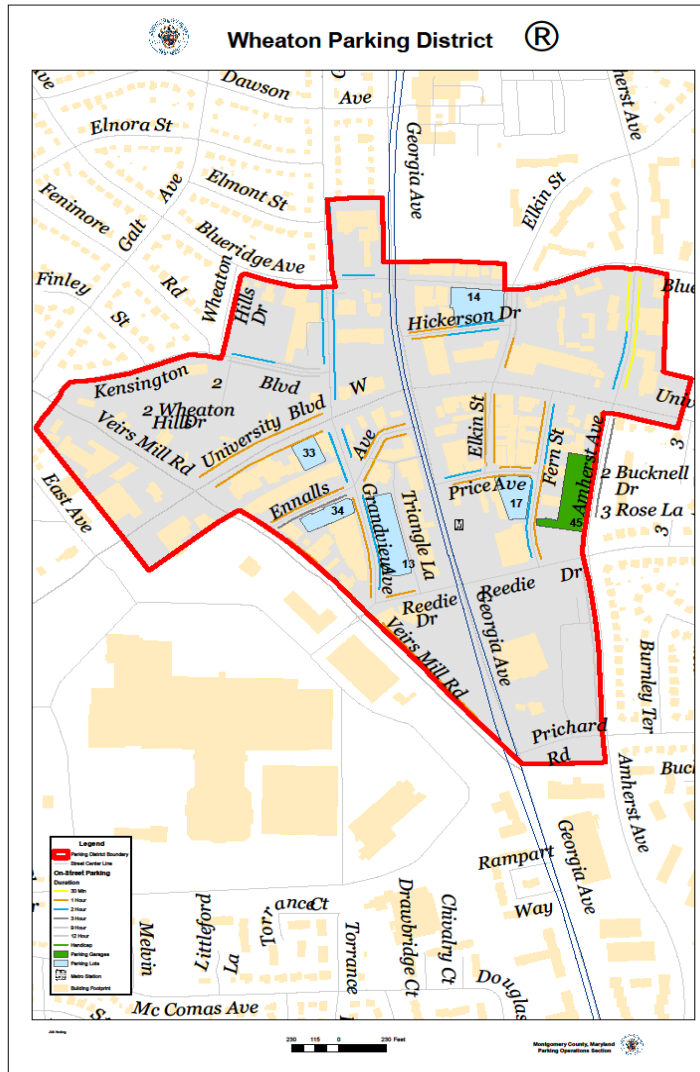
- Parking facilities with 50% of less occupancy were rated higher than fuller facilities. Only 8 facilities were below 50%, and 5 of those 8 were lots.
- Below ground garages were rated higher than above ground facilities
- Facilities with pay-on-foot payment systems were rated lowest in ease of payment and cost of parking
- Even though cost was rated lowest out of the questions asked, there was not a significant correlation between the price of parking and the rating
  - The most expensive lot that was surveyed (Lot 25 in Bethesda) was rated the lowest in for the cost of parking for both visitors and permit holders
  - Garage 9 and 60 have the same rate and are in the same district, but the former was rated 3.12 and the later 2.37. Some of this difference may be due to the halo affect mentioned on the previous page.
- Parkers going one block or less to their destination have a more positive view of facility safety, ease of payment, and convenience to destination as compared to parkers going 2 or more blocks







# Wheaton and Montgomery Hills Parking District Maps



# Parking Facility Characteristics

Facility	Short-Term Rate	Long-Term Rate	Garage/Lot	Above / Below Grade	Total Spaces	Peak Occupancy			Payment System	Credit Card Payment?	Year Built
						FY09	FY11	FY13			
2	\$1.00	\$0.65	Garage	Above	1,357	51%	68%	61%	Meter	No	1972
3	\$1.00	\$0.65	Lot	Above	150	70%	57%	59%	Meter	No	-
7	\$1.00	\$0.65	Garage	Above	1,383	84%	80%	77%	Pay-by-Space	Yes	1966/1974
9	\$1.00	\$0.65	Garage	Above	592	-	-	37%	Meter	No	-
11	\$0.80	\$0.80	Garage	Above	1,104	67%	56%	61%	Pay-on-Foot	Yes	1970/1981
12	\$0.50	\$0.50	Lot	Above	67	24%	22%	16%	Meter	No	-
13	\$0.75	\$0.60	Lot	Above	158	69%	60%	63%	Meter	No	-
14	\$0.75	\$0.60	Lot	Above	108	77%	57%	48%	Meter	No	-
25	\$1.25	\$1.25	Lot	Above	129	55%	55%	42%	Meter	No	-
29	\$1.00	\$0.65	Lot	Above	74	-	-	49%	Meter	No	-
31	\$1.25	\$1.25	Lot	Above	74	99%	93%	49%	Meter	No	-
35	\$0.80	\$0.80	Garage	Above	496	77%	82%	80%	Meter	No	1965/1971
42	\$0.80	\$0.80	Garage	Below	343	54%	42%	48%	Meter	No	2003
45	\$0.75	\$0.60	Garage	Above	638	52%	53%	52%	Pay-by-Space	Yes	1990
48	\$0.50	\$0.50	Lot	Above	36	64%	60%	71%	Meter	No	-
49	\$0.80	\$0.80	Garage	Below	982	97%	81%	73%	Cashier	Yes	1991
5/55	\$1.00	\$0.65	Garage	Above	1,661	43%	41%	40%	Meter	No	1982
57	\$0.80	\$0.80	Garage	Above	914	95%	77%	88%	Meter	No	1990
58	\$1.00	\$0.65	Garage	Below	1,149	97%	99%	93%	Meter	No	1993
60	\$1.00	\$0.65	Garage	Above	1,694	62%	63%	61%	Pay-on-Foot	Yes	2004



Key:

Bethesda

Silver Spring

Wheaton

Montgomery Hills

## Survey 1

# BUSINESS SURVEY



## Business Characteristics (1/2) – Type of Business

	<u>Retail</u>	<u>Restaurant</u>	<u>Office</u>	<u>Other</u>	<u>No Answer</u>	<u>Total</u>
Bethesda	47	18	1	14	1	81
Silver Spring	37	21	5	14	1	78
Wheaton	6	4	--	--	--	10
Montgomery Hills	1	2	--	6	--	9

Since the surveyors canvassed street-level businesses during the weekday, the number of responses are dominated by retail and restaurants



## Business Characteristics (2/2) – Provide Parking?

	<u>Employees</u>		<u>Customers</u>	
	Yes	No	Yes	No
Bethesda	26%	74%	17%	83%
Silver Spring	30%	70%	19%	81%
Wheaton	60%	40%	30%	70%
Montgomery Hills	50%	50%	37%	63%

Businesses surveyed are more likely to provide business-supplied parking for their employees than their customers



# Snapshot of Business Survey Data (1 of 2)

## Customer and Employee Ratings\*

		<u>Convenient Location</u>	<u>Safe Facility</u>	<u>Fair Enforcement</u>	<u>Facility Condition</u>	<u>Easy Maneuverable</u>	<u>Fair Rates</u>
Bethesda	Customer (78)	2.21 ↑	2.77	2.02 ↑	2.87	2.35 ↓	2.20 ↑
	Employee (79)	2.39 ↑	2.80	2.20 ↑	2.96	2.55	2.12 ↑
Silver Spring	Customer (74)	2.41 ↑	2.74	2.05 ↑	2.76 ↓	2.67 ↑	2.19 ↑
	Employee (71)	2.62	2.77 ↑	2.18	2.78	2.74	2.19
Wheaton	Customer (7)	2.43 ↑	2.71	1.57 ↓	3.00 ↑	2.29 ↑	2.57
	Employee (3)	3.00 ↑	3.00 ↑	1.67	3.00 ↑	3.00 ↑	2.33 ↓
Montgomery Hills	Customer (8)	2.38 ↓	2.43 ↓	2.50 ↑	2.88 ↑	2.75 ↑	2.50 ↓
	Employee (6)	2.50 ↓	2.33 ↓	2.33	3.00 ↑	2.67 ↓	2.67

(↓ indicates 5+% decrease from FY11; ↑ indicates 5+% increase from FY11)

Among the two major business districts, Bethesda and Silver Spring, respondents agreed that about facility condition and safety were good.

\*The sample size is listed in parentheses. If the business responded to at least one survey question, it is counted in the sample size for the parking district. Some businesses gave their business and customer characteristics, but did not answer survey questions.

1= Disagree; 2=Somewhat Disagree; 3= Agree



## Snapshot of Business Survey Data (2 of 2)

### *Busiest Day and Time\**

	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>	<u>Sunday</u>
Bethesda	6%	6%	5%	9%	28% ↑	39% ↑	7%
Silver Spring	9%	7%	7%	12%	25%	34% ↑	6%
Wheaton	0% ↓	0%	4% ↓	13% ↑	26% ↓	31%	26% ↑
Montgomery Hills	6% ↓	6% ↓	6% ↓	6%	35% ↑	35% ↑	6%

	<u>Prior 9AM</u>	<u>9-11 AM</u>	<u>11AM-1PM</u>	<u>1-5PM</u>	<u>After 5PM</u>
Bethesda	6%	21%	29%	19%	25%
Silver Spring	7% ↑	25% ↑	21% ↓	18%	29% ↓
Wheaton	17% ↑	39% ↑	11%	11% ↓	22% ↓
Montgomery Hills	0%	50% ↑	13% ↓	0% ↓	37% ↑

(↓ indicates 5+ percentage point decrease from FY11; ↑ indicates 5+ percentage point increase from FY11)

\*NOTE: Survey respondents indicated multiple days and times that were the busiest periods for their business. The results shown above are not adjusted for the multiple responses.





## Survey 2

# PEDESTRIAN SURVEY



# Parker Characteristics

		How many blocks is it to your final destination?					How do you purchase/renew your parking permit?*			
		1 or less	2	3	4+	Total	Mail	Walk-In	Both/Other <sup>†</sup>	Total
Permit Holders	Garage	371	250	90	105	816	260	214	67	541
	Lot	119	13	12	18	162	25	33	20	78
	On-Street	4	1	0	2	7	N/A	N/A	N/A	N/A
	Total	494	264	102	125	985	285	247	87	619
	Percent	50% ↓	27% ↑	10% ↑	13% ↑	100%	46% ↓	40% ↑	14% ↓	100%

Visitors	Garage	220	203	99	135	657
	Lot	83	19	16	22	140
	On-Street	4	2	0	5	11
	Total	307	224	115	162	808
	Percent	38% ↓	28% ↑	14% ↑	20% ↑	100%

(↓ Indicates a decrease from FY11; ↑ indicates an increase from FY11)

While the majority of parkers' final destinations are still within 2 blocks of their parking space, more respondents are walking further distances as compared to the FY09 and FY11 survey respondents. For permit parkers, destinations 3+ blocks increased 5 percentage points and 7 points for visitors between FY13 and FY11.

\*Not all permit holders indicated their renewal method resulting in a smaller sample size as compared to the total number of permit holders

<sup>†</sup>55 respondents used both methods, 14 respondents reported renewal through mobile, 4 reported renewal via the internet, 14 indicated their permit was covered by their employer



## Pedestrian Survey – Part 1

# **RATINGS BY PERMIT OR VISITOR PARKER**



# Permit Holder Satisfaction (1/3) – By Garage/Lot

<u>Garage/ Lot</u>	<u>Availability</u>	<u>Navigation</u>	<u>Facility Condition</u>	<u>Safety And Security</u>	<u>Destination Convenience</u>	<u>Sign-up Ease</u>	<u>Cost of Parking</u>	<u>Overall</u>
9	3.67	3.88	3.90	3.79	3.67	3.71	3.12	3.68
42	3.80	3.78	3.82	3.69	3.92	3.89	2.21	3.60
25	3.96	3.77	3.65	3.81	3.88	3.33	2.17	3.55
35	3.52	3.47	3.73	3.79	3.73	3.51	2.55	3.48
7	3.53	3.47	3.70	3.52	3.58	3.20	2.99	3.44
49	3.57	3.60	3.47	3.40	3.66	3.38	3.01	3.44
13	3.33	3.50	3.73	3.64	3.50	3.08	3.20	3.42
45	3.67	3.66	3.45	3.36	3.64	3.05	2.24	3.35
48	2.91	3.59	3.09	3.39	3.81	3.36	3.14	3.33
29	3.25	3.43	3.30	3.56	3.72	3.06	2.67	3.32
58	3.35	3.27	3.52	3.29	3.60	3.24	2.97	3.32
11	3.52	3.29	3.39	3.50	3.35	3.55	2.57	3.32
2	3.68	3.57	3.34	3.45	3.27	3.14	2.29	3.29
5/55	3.09	3.07	3.31	3.37	3.75	3.23	2.42	3.22
3	3.44	3.44	3.23	3.38	3.59	2.37	2.22	3.09
57	3.43	3.02	3.20	3.00	3.07	2.87	2.36	3.00
60	3.28	2.86	2.84	2.94	2.95	2.71	2.37	2.86
12	N/A – Only locations with 15 or more survey responses were included							
14								
Average*	3.46	3.35	3.38	3.36	3.45	3.12	2.60	3.26

\*Question averages are the weighted average across all parking facilities used by permit holders

  = Below Average Rating at a Statistically Significant Level

  = Above Average Rating at a Statistically Significant Level



## Permit Holder Satisfaction (2/3) - Rankings

	1	2	3	4	5	6	7	8	9
Garage/Lot	9	42	25	35	7	49	13	45	48
Average Satisfaction	3.68	3.60	3.55	3.48	3.44	3.44	3.42	3.35	3.33
(FY11 Rank)	N/A	(2)	(7)	(3)	(4)	(9)	(16)	(5)	(13)

	10	11	12	13	14	15	16	17
Garage/Lot	29	58	11	2	5/55	3	57	60
Average Satisfaction	3.32	3.32	3.32	3.29	3.22	3.09	3.00	2.86
(FY11 Rank)	N/A	(8)	(6)	(15)	(12)	(17)	N/A	(11)

Parking District	Montgomery Hills	Wheaton	Bethesda	Silver Spring	All Districts
Average Satisfaction	3.51	3.33	3.31	3.20	3.26

■ = Below Average Rating for All Districts at a Statistically Significant Level  
■ = Above Average Rating for All Districts at a Statistically Significant Level



## Permit Holder Satisfaction (3/3) - Summary

- **Permit holder satisfaction dropped from FY11 when overall satisfaction was at 3.45**
  - More facilities were rated in FY13 as compared to FY11, which possibly affects the overall score
  - The anomaly of the federal government shutdown during the survey period may also have affected scores as this period may not be a representative “normal” weekday
- **Montgomery Hills was rated highest on average as compared to the other parking districts**
- **Silver Spring had the lowest rating of all parking districts, mainly brought down by poor perceptions of Garage 60**
- **Of the top five individual facilities, 4 were located in Bethesda**



# Visitor Satisfaction (1/3) – Garage/Lot

<u>Garage/ Lot</u>	<u>Availability</u>	<u>Navigation</u>	<u>Facility Condition</u>	<u>Safety and Security</u>	<u>Destination Convenience</u>	<u>Pay Ease</u>	<u>Cost of Parking</u>	<u>Overall</u>
5/55	3.89	3.67	3.72	3.78	3.89	3.11	3.13	3.62
9	3.79	3.71	3.74	3.74	3.62	3.38	3.07	3.58
25	4.00	4.00	3.98	3.86	3.95	3.05	1.95	3.55
13	3.40	3.58	3.79	3.64	3.77	3.55	2.95	3.53
48	2.95	3.59	3.56	3.61	3.83	3.82	3.24	3.51
35	3.56	3.63	3.71	3.73	3.64	3.23	3.04	3.50
49	3.61	3.59	3.44	3.49	3.63	3.39	2.98	3.45
58	3.54	3.36	3.50	3.57	3.75	3.15	3.15	3.43
7	3.66	3.25	3.51	3.49	3.58	3.10	3.14	3.40
3	3.48	3.60	3.09	3.32	3.84	3.12	3.13	3.38
29	3.12	3.53	3.20	3.19	3.47	3.13	2.80	3.24
45	3.59	3.29	3.47	3.12	3.38	2.82	2.82	3.20
57	3.46	3.16	3.45	3.33	3.25	2.92	2.47	3.16
2	3.40	3.24	3.38	3.24	3.19	3.29	2.10	3.12
14	3.53	3.16	3.10	3.16	3.56	2.38	2.29	3.09
60	3.06	2.85	3.04	2.99	3.19	2.97	2.67	2.97
11	N/A – Only locations with 15 or more survey responses were included							
12								
42								
Average*	3.46	3.35	3.44	3.41	3.51	3.14	2.76	3.30

\*Question averages are the weighted average across all parking facilities used by visitors

  = Below Average Rating at a Statistically Significant Level

  = Above Average Rating at a Statistically Significant Level



## Visitor Satisfaction (2/3) - Rankings

	1	2	3	4	5	6	7	8	9
Garage/Lot	5/55	9	25	13	48	35	49	58	7
Average Satisfaction	3.62	3.58	3.55	3.53	3.51	3.50	3.45	3.43	3.40
(FY11 Rank)	(11)	(N/A)	(7)	(14)	(13)	(3)	(9)	(16)	(5)

	10	11	12	13	14	15	16
Garage/Lot	3	29	45	57	2	14	60
Average Satisfaction	3.38	3.24	3.20	3.16	3.12	3.09	2.97
(FY11 Rank)	(N/A)	(N/A)	(2)	(N/A)	(8)	(6)	(15)

Parking District	Montgomery Hills	Wheaton	Bethesda	Silver Spring	All Districts
Average Satisfaction	3.55	3.40	3.35	3.23	3.30

= Below Average Rating for All Districts at a Statistically Significant Level  
 = Above Average Rating for All Districts at a Statistically Significant Level





## **Visitor Satisfaction (3/3) - Summary**

- Overall, visitors ranked the four parking districts higher than permit holders, but still have a lower rating as compared to visitor scores in FY11
- As with the permit holders, Silver Spring was the lowest rated parking district with Garage 60 being ranked last
- Each parking district had at least one facility rank in the top five facilities
- The lowest ratings came from ease of payment and the cost of parking. This is consistent with the FY11 survey results.



# Facility Ranking: Permit Holders and Visitor Parkers

Garage/Lot #	Permit Rank	Visitor Rank	Difference
2	13	14	1
3	15	10	5
7	5	9	4
9	1	2	1
11	12	N/A	N/A
13	7	4	3
14	N/A	15	N/A
25	3	3	0
29	10	11	1
35	4	6	2
42	2	N/A	N/A
45	8	12	4
48	9	5	4
49	6	7	1
5/55	14	1	13
57	16	13	3
58	11	8	3
60	17	16	1

Of the 15 garage and lots ranked by both permit and visitor parkers, 10 facilities (67%) were ranked within 3 or less positions of each other. There was a stark perception difference between the two groups concerning garage 5/55 in Silver Spring. This lot ranked number one for visitors and number 14 for permit holders.



Key:

Bethesda

Silver Spring

Wheaton

Montgomery Hills

## Pedestrian Survey – Part 2

# RATINGS BY FACILITY CHARACTERISTICS



# Facility Satisfaction Rankings by Occupancy

Permit Holders			
Garage/ Lot	Availability	Overall Average	Occupancy FY13
58	3.35	3.32	93%
57	3.43	3.00	88%
35	3.52	3.48	80%
7	3.53	3.44	77%
49	3.57	3.44	73%
48	2.91	3.33	71%
13	3.33	3.42	63%
2	3.68	3.29	61%
11	3.52	3.32	61%
60	3.28	2.86	61%
3	3.44	3.09	59%
45	3.67	3.35	52%
29	3.25	3.32	49%
42	3.80	3.60	48%
25	3.96	3.55	42%
5/55	3.09	3.22	40%
9	3.67	3.68	37%
Average	3.46	3.26	62%

Visitor Parkers			
Garage/ Lot	Availability	Overall Average	Occupancy FY13
58	3.54	3.43	93%
57	3.46	3.16	88%
35	3.56	3.50	80%
7	3.66	3.40	77%
49	3.61	3.45	73%
48	2.95	3.51	71%
13	3.40	3.53	63%
2	3.40	3.12	61%
60	3.06	2.97	61%
3	3.48	3.38	59%
45	3.59	3.20	52%
29	3.12	3.24	49%
14	3.53	3.09	48%
25	4.00	3.55	42%
5/55	3.89	3.62	40%
9	3.79	3.58	37%
Average	3.46	3.30	62%

= Below Average Rating at a Statistically Significant Level  
 = Above Average Rating at a Statistically Significant Level



# Impact of Occupancy on Satisfaction

## All Parkers

Availability of Parking					
Occupancy	Average	N	StdDev	Difference	p-value
<50%	3.63	377	0.70		
50-75%	3.35	798	0.82	-0.28	0.00
76-100%	3.49	609	0.71	-0.14	0.00

Feeling of Safety					
Occupancy	Average	N	StdDev	Difference	p-value
<50%	3.61	376	0.64		
50-75%	3.25	796	0.88	-0.36	0.00
76-100%	3.40	602	0.84	-0.21	0.00

Ease of Navigation					
Occupancy	Average	N	StdDev	Difference	p-value
<50%	3.64	376	0.66		
50-75%	3.26	796	0.87	-0.38	0.00
76-100%	3.28	598	0.76	-0.35	0.00

Convenience to Destination					
Occupancy	Average	N	StdDev	Difference	p-value
<50%	3.75	369	0.61		
50-75%	3.37	792	0.85	-0.38	0.00
76-100%	3.45	601	0.78	-0.30	0.00

Facility Condition					
Occupancy	Average	N	StdDev	Difference	p-value
<50%	3.59	375	0.69		
50-75%	3.25	793	0.86	-0.35	0.00
76-100%	3.51	603	0.70	-0.09	0.03

For each of the five questions shown above, satisfaction was higher in facilities with less than 50% peak occupancy as compared to facilities with higher occupancy rates. Of the 8 facilities with <50% occupancy, 5 were lots and 3 were garages.

■ = Avg. Rating Lower at a Statistically Significant Level

■ = Avg. Rating Higher at a Statistically Significant Level



# Facility Satisfaction Rankings: Above/Below Grade Level

Permit Holders					
Garage/Lot	Navigation	Facility Condition	Safety and Security	Overall	Above or Below Grade
2	3.57	3.34	3.45	3.29	Above
3	3.44	3.23	3.38	3.09	Above
5/55	3.07	3.31	3.37	3.22	Above
7	3.47	3.70	3.52	3.44	Above
9	3.88	3.90	3.79	3.68	Above
11	3.29	3.39	3.50	3.32	Above
13	3.50	3.73	3.64	3.42	Above
25	3.77	3.65	3.81	3.55	Above
29	3.43	3.30	3.56	3.32	Above
35	3.47	3.73	3.79	3.48	Above
45	3.66	3.45	3.36	3.35	Above
48	3.59	3.09	3.39	3.33	Above
57	3.02	3.20	3.00	3.00	Above
60	2.86	2.84	2.94	2.86	Above
42	3.78	3.82	3.69	3.60	Below
49	3.60	3.47	3.40	3.44	Below
58	3.27	3.52	3.29	3.32	Below
Average	3.35	3.38	3.36	3.26	

Visitor Parkers					
Garage/Lot	Navigation	Facility Condition	Safety And Security	Overall	Above or Below Grade
2	3.24	3.38	3.24	3.12	Above
3	3.60	3.09	3.32	3.38	Above
5/55	3.67	3.72	3.78	3.62	Above
7	3.25	3.51	3.49	3.40	Above
9	3.71	3.74	3.74	3.58	Above
13	3.58	3.79	3.64	3.53	Above
14	3.16	3.10	3.16	3.09	Above
25	4.00	3.98	3.86	3.55	Above
29	3.53	3.20	3.19	3.24	Above
35	3.63	3.71	3.73	3.50	Above
45	3.29	3.47	3.12	3.20	Above
48	3.59	3.56	3.61	3.51	Above
57	3.16	3.45	3.33	3.16	Above
60	2.85	3.04	2.99	2.97	Above
49	3.59	3.44	3.49	3.45	Below
58	3.36	3.50	3.57	3.43	Below
Average	3.35	3.44	3.41	3.30	

■ = Below Average Rating at a Statistically Significant Level  
■ = Above Average Rating at a Statistically Significant Level



# Impact of Above vs. Below Grade on Satisfaction

## All Parkers

Availability of parking					
Grade	Average	N	StdDev	Difference	p-value
Above	3.44	1,540	0.78		
Below	3.57	262	0.65	0.13	0.00

Feeling of Safety					
Grade	Average	N	StdDev	Difference	p-value
Above	3.37	1,530	0.85		
Below	3.47	262	0.68	0.10	0.02

Ease of Navigation					
Grade	Average	N	StdDev	Difference	p-value
Above	3.32	1,526	0.83		
Below	3.53	262	0.64	0.21	0.00

Convenience to Destination					
Grade	Average	N	StdDev	Difference	p-value
Above	3.44	1,518	0.83		
Below	3.70	262	0.52	0.26	0.00

Facility Condition					
Grade	Average	N	StdDev	Difference	p-value
Above	3.38	1,528	0.82		
Below	3.55	261	0.62	0.17	0.00

Below ground facilities rated higher than above ground facilities across the five questions shown above. However, there were only three below ground facilities to compare to the above ground facilities and only 14% of all respondents used the below ground garages.

■ = Avg. Rating Lower at a Statistically Significant Level  
■ = Avg. Rating Higher at a Statistically Significant Level



# Facility Satisfaction Rankings by Fee Rates\*

Permit Holders				
Garage/ Lot	Cost of Parking	Overall	Short- Term Rate	Long- Term Rate
48	3.14	3.33	\$0.50	\$0.50
13	3.20	3.42	\$0.75	\$0.60
45	2.24	3.35	\$0.75	\$0.60
11	2.57	3.32	\$0.80	\$0.80
35	2.55	3.48	\$0.80	\$0.80
42	2.21	3.60	\$0.80	\$0.80
49	3.01	3.44	\$0.80	\$0.80
57	2.36	3.00	\$0.80	\$0.80
2	2.29	3.29	\$1.00	\$0.65
3	2.22	3.09	\$1.00	\$0.65
5/55	2.42	3.22	\$1.00	\$0.65
7	2.99	3.44	\$1.00	\$0.65
9	3.12	3.68	\$1.00	\$0.65
29	2.67	3.32	\$1.00	\$0.65
58	2.97	3.32	\$1.00	\$0.65
60	2.37	2.86	\$1.00	\$0.65
25	2.17	3.55	\$1.25	\$1.25
Average	2.60	3.26		

Visitor Parkers				
Garage/ Lot	Cost of Parking	Overall	Short- Term Rate	Long- Term Rate
48	3.24	3.51	\$0.50	\$0.50
13	2.95	3.53	\$0.75	\$0.60
14	2.29	3.09	\$0.75	\$0.60
45	2.82	3.20	\$0.75	\$0.60
35	3.04	3.50	\$0.80	\$0.80
49	2.98	3.45	\$0.80	\$0.80
57	2.47	3.16	\$0.80	\$0.80
2	2.10	3.12	\$1.00	\$0.65
3	3.13	3.38	\$1.00	\$0.65
5/55	3.13	3.62	\$1.00	\$0.65
7	3.14	3.40	\$1.00	\$0.65
9	3.07	3.58	\$1.00	\$0.65
29	2.80	3.24	\$1.00	\$0.65
58	3.15	3.43	\$1.00	\$0.65
60	2.67	2.97	\$1.00	\$1.00
25	1.95	3.55	\$1.25	\$1.25
Average	2.76	3.30		

  = Below Average Rating at a Statistically Significant Level

  = Above Average Rating at a Statistically Significant Level

\*Data are sorted by short-term rate





# Facility Satisfaction Rankings by Payment System

Permit Holders				
Garage/ Lot	Sign-up Ease	Cost of Parking	Overall	Payment System
49	3.38	3.01	3.44	Cashier
2	3.14	2.29	3.29	Meter
3	2.37	2.22	3.09	Meter
5/55	3.23	2.42	3.22	Meter
9	3.71	3.12	3.68	Meter
13	3.08	3.20	3.42	Meter
25	3.33	2.17	3.55	Meter
29	3.06	2.67	3.32	Meter
35	3.51	2.55	3.48	Meter
42	3.89	2.21	3.60	Meter
48	3.36	3.14	3.33	Meter
57	2.87	2.36	3.00	Meter
58	3.24	2.97	3.32	Meter
7	3.20	2.99	3.44	Pay-by-Space
45	3.05	2.24	3.35	Pay-by-Space
11	3.55	2.57	3.32	Pay-on-Foot
60	2.71	2.37	2.86	Pay-on-Foot
Average	3.12	2.60	3.26	

Visitor Parkers				
Garage/ Lot	Pay Ease	Cost of Parking	Overall	Payment System
49	3.39	2.98	3.45	Cashier
2	3.29	2.10	3.12	Meter
3	3.12	3.13	3.38	Meter
5/55	3.11	3.13	3.62	Meter
9	3.38	3.07	3.58	Meter
13	3.55	2.95	3.53	Meter
14	2.38	2.29	3.09	Meter
25	3.05	1.95	3.55	Meter
29	3.13	2.80	3.24	Meter
35	3.23	3.04	3.50	Meter
48	3.82	3.24	3.51	Meter
57	2.92	2.47	3.16	Meter
58	3.15	3.15	3.43	Meter
7	3.10	3.14	3.40	Pay-by-Space
45	2.82	2.82	3.20	Pay-by-Space
60	2.97	2.67	2.97	Pay-on-Foot
Average	3.14	2.76	3.30	

■ = Below Average Rating at a Statistically Significant Level  
■ = Above Average Rating at a Statistically Significant Level



# Impact of Payment System on Satisfaction

## All Parkers

Cost of Parking					
Payment	Average	N	StdDev	Difference	p-value
All	2.67	1,726	1.02		
Cashier	3.00	117	0.84	0.33	0.00
Meter	2.65	1,065	1.07	-0.02	0.30
Pay-by-Space	2.87	204	0.92	0.20	0.00
Pay-on-Foot	2.50	340	0.96	-0.17	0.00

Ease of Payment/ Ease of Sign-up					
Payment	Average	N	StdDev	Difference	p-value
All	3.13	1,500	0.79		
Cashier	3.38	91	0.56	0.25	0.00
Meter	3.20	940	0.76	0.06	0.02
Pay-by-Space	3.10	154	0.66	-0.04	0.27
Pay-on-Foot	2.89	315	0.92	-0.25	0.00

Cost of Parking					
Credit?	Average	N	StdDev	Difference	p-value
Yes	2.71	788	0.96		
No	2.63	938	1.08	-0.08	0.05

Ease of Payment					
Credit?	Average	N	StdDev	Difference	p-value
Yes	3.07	651	0.80		
No	3.18	849	0.78	0.11	0.00

Pay-on-foot remains the least popular form of payment system. Parkers found it slightly harder to pay for parking in garages with credit card systems as compared to coin/cash payment.

■ = Avg. Rating Lower at a Statistically Significant Level  
■ = Avg. Rating Higher at a Statistically Significant Level



# Impact of Proximity to Destination on Satisfaction

## All Parkers

Feeling of Safety					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.49	791	0.76		
2	3.33	485	0.87	-0.16	0.00
3	3.23	216	0.88	-0.26	0.00
4+	3.31	284	0.86	-0.19	0.00

Ease of Payment/ Ease of Sign-up					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.22	606	0.67		
2	3.10	437	0.82	-0.12	0.00
3	2.89	202	0.88	-0.34	0.00
4+	3.17	243	0.86	-0.05	0.19

Convenience to Destination					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.66	786	0.67		
2	3.34	483	0.82	-0.31	0.00
3	3.22	217	0.88	-0.43	0.00
4+	3.44	280	0.86	-0.22	0.00

Cost of Parking					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	2.67	759	1.03		
2	2.70	472	1.01	0.03	0.29
3	2.59	212	1.04	-0.08	0.16
4+	2.68	273	1.04	0.01	0.46

For permit and visitor parkers going further than one block to their final destination, feeling of safety, ease of payment, and convenience to final destination are lower as compared to parkers only going one block. Distance was not a factor in determining how a respondent felt about the cost.



= Avg. Rating Lower at a Statistically Significant Level



= Avg. Rating Higher at a Statistically Significant Level



# Impact of Proximity to Destination on Satisfaction

## Permit Holders

Feeling of Safety					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.47	492	0.78		
2	3.30	263	0.89	-0.16	0.01
3	3.21	101	0.89	-0.26	0.00
4+	3.21	124	0.95	-0.26	0.00

Ease of Sign-up					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.20	304	0.68		
2	3.06	216	0.83	-0.14	0.02
3	2.82	88	0.86	-0.38	0.00
4+	3.27	93	0.90	0.07	0.25

Convenience to Destination					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.66	485	0.68		
2	3.26	261	0.83	-0.40	0.00
3	3.17	102	0.86	-0.49	0.00
4+	3.32	122	0.90	-0.34	0.00

Cost of Parking					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	2.62	462	1.02		
2	2.62	255	1.02	0.00	0.48
3	2.48	101	1.08	-0.15	0.10
4+	2.56	120	1.08	-0.07	0.28

These results are consistent with the trends seen for all parkers



# Impact of Proximity to Destination on Satisfaction

## Visitor Parkers

Feeling of Safety					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.53	299	0.72		
2	3.36	222	0.85	-0.17	0.01
3	3.24	115	0.87	-0.29	0.00
4+	3.38	160	0.78	-0.15	0.02

Ease of Payment					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.25	302	0.65		
2	3.14	221	0.80	-0.11	0.05
3	2.94	114	0.90	-0.31	0.00
4+	3.11	150	0.81	-0.14	0.03

Convenience to Destination					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	3.65	301	0.65		
2	3.44	222	0.80	-0.21	0.00
3	3.27	115	0.90	-0.38	0.00
4+	3.53	158	0.81	-0.12	0.06

Cost of Parking					
Blocks away	Average	N	StdDev	Difference	p-value
1 or less	2.74	297	1.05		
2	2.80	217	0.99	0.06	0.26
3	2.69	111	0.99	-0.05	0.33
4+	2.77	153	0.99	0.03	0.39

These results are consistent with the trends seen for all parkers



■ = Avg. Rating Lower at a Statistically Significant Level  
■ = Avg. Rating Higher at a Statistically Significant Level