

# Apartment Profiling in Washington DC, Metro Area



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# DATA

Data Collection

Data Cleaning

Visualization

Cluster Analysis

Modeling

Principal Component Analysis

Incorporating "Number of Reviews"

**Apartment Ratings**  
Apartment reviews by real people!

My Account Search: City:

RATINGS & REVIEWS MOVING CENTER FREE LOCATOR

Apartments >> Maryland >> Hyattsville >> Graduate Hills & Graduate Gardens

**MOVING RESOURCES**

APARTMENTS  
Apartment locator

ROOMMATES  
Roommates.com

MOVERS  
Moving estimate  
Moving companies

SELF MOVES  
Moving truck rental

**Graduate Hills & Graduate Gardens** XML +Pluck RSS

RECOMMENDED BY **25.0%**

Overall Rating

Parking: Maintenance: Construction: Noise: Grounds: Safety: Office Staff:

7704 Adelphi Road  
Hyattsville, MD 20783  
301-422-0147  
Map  
I'm the manager  
I'm a resident

Reviews Pricing Report Write a review

Get help finding an apartment in Hyattsville

Opinions 10 of 16 | Show all

| Variable       | Scale        |
|----------------|--------------|
| No. of Reviews | Numeric      |
| Parking        | Semantic 1-5 |
| Maintenance    | Semantic 1-5 |
| Construction   | Semantic 1-5 |
| Noise          | Semantic 1-5 |
| Grounds        | Semantic 1-5 |
| Safety         | Semantic 1-5 |
| Overall        | Semantic 1-5 |
| Recommended by | %            |

| Apartment Name               | City         | Reviews | Parking | Maintenance | Construction | Noise | Grounds | Safety | Office Staff | Overall | Recommendation |
|------------------------------|--------------|---------|---------|-------------|--------------|-------|---------|--------|--------------|---------|----------------|
| Bomerset Pointe Apartments   | Gainesville  | 40      | 4.33    | 4.22        | 3.80         | 3.73  | 3.85    | 4.13   | 3.95         | 3.95    | 75%            |
| Promenade Apartments         | Washington   | 5       | 2.4     | 4.2         | 3.4          | 4     | 3.4     | 4      | 3.6          | 3.6     | 80%            |
| Fieldstone Farm              | Odenton      | 10      | 4.30    | 4.20        | 4.10         | 4.30  | 4.30    | 4.60   | 4.10         | 4.40    | 80%            |
| Post Comrs at Trinity Centre | Centreville  | 30      | 3.97    | 4.20        | 3.83         | 3.53  | 4.40    | 4.07   | 4.37         | 4.20    | 73%            |
| Carter Lake Apartments       | Reston       | 43      | 4.12    | 4.19        | 4.19         | 4.40  | 4.07    | 4.16   | 4.30         | 4.23    | 84%            |
| Security Park Apartments     | Windsor Mill | 6       | 4.17    | 4.17        | 4.00         | 4.33  | 4.33    | 4.33   | 4.33         | 4.50    | 83%            |
| Camden Westwind              | Ashburn      | 6       | 4.17    | 4.17        | 4.17         | 3.83  | 3.33    | 3.33   | 4.00         | 3.83    | 67%            |

DC

Suburbs

Data  
Collection

Data  
Cleaning

Visualization

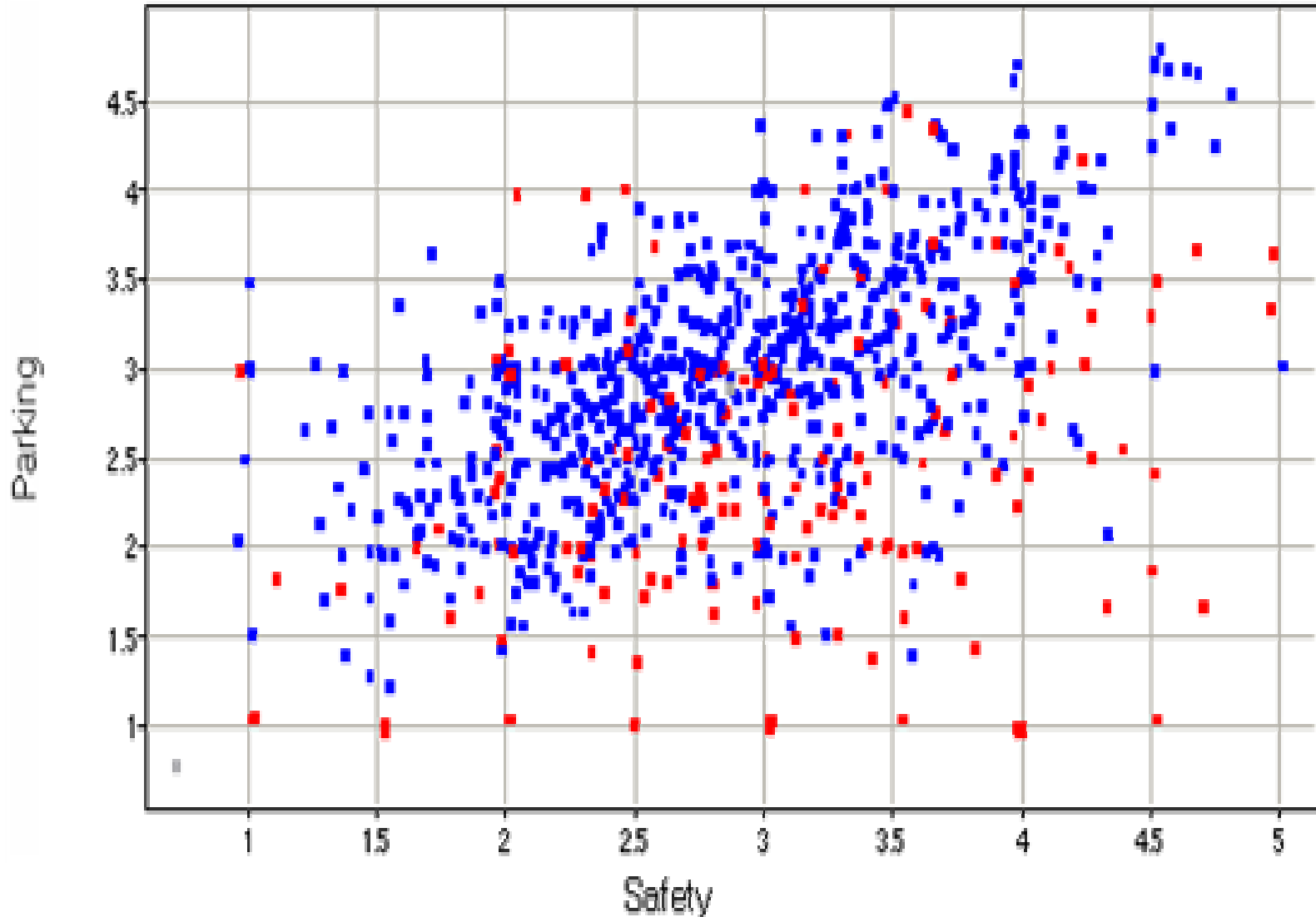
Cluster  
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"Number of  
Reviews"

Scatter Plot



Data  
Collection

Data  
Cleaning

Visualization

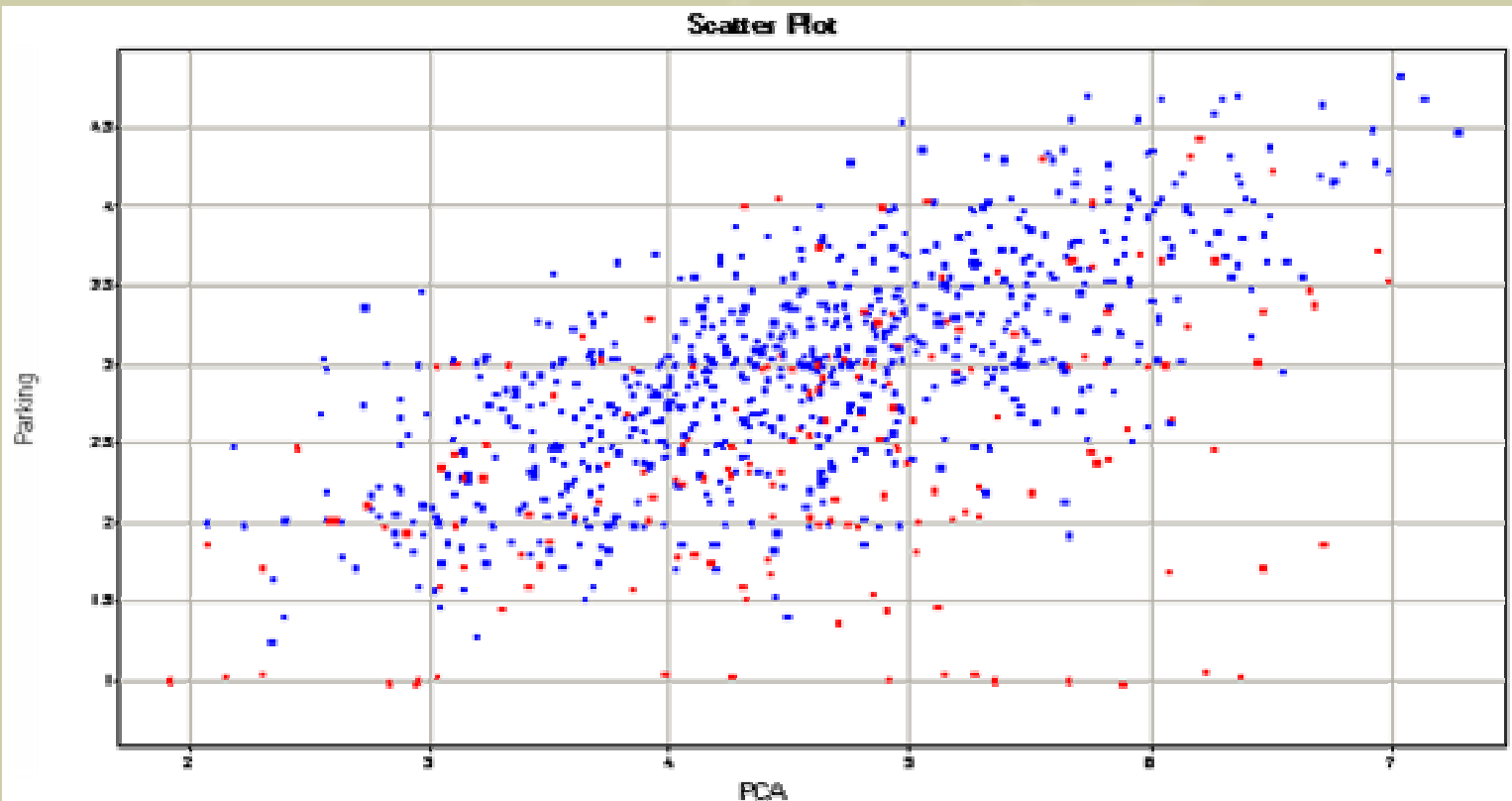
Cluster  
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Incorporating  
“Number of  
Reviews”

- Cluster Analysis  
No meaningful segregation into clusters.
- Modeling  
All models have very low explanatory power.
- Principal Component Analysis



# MODELING RESULTS

Data  
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Data  
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## Classification Tree

IF PARKING < 2.41  
AND SAFETY > 2.66  
THEN DC,  
ELSE SUBURB

## Full Tree Only!

## Discriminant Analysis

Low sensitivity to  
DC apartments

- 36.5%

## Logistic Regression

Explanatory power  
low

- With all reviews  
14%
- With > 11 reviews  
30%

# LOGISTIC REGRESSION AND DISCRIMINANT ANALYSIS

## DC

| Variable      | Logistic Regression:<br>Odds Ratio | Discriminant Analysis:<br>Coefficient Range |
|---------------|------------------------------------|---------------------------------------------|
| Safety        | 13.9                               | 2.09                                        |
| % Recommended | 1.1                                | 1.28                                        |

## Suburbs

| Variable     | Logistic Regression:<br>Odds Ratio | Discriminant Analysis:<br>Coefficient Range |
|--------------|------------------------------------|---------------------------------------------|
| Parking      | 7.9                                | 1.52                                        |
| Ground       | 7.4                                | 1.39                                        |
| Office Staff | 9.2                                | 1.13                                        |

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# Takeaways

- Particular:
  - DC apartments are perceived to be safer, are recommended by a greater fraction of reviewers.
  - Suburban apartments have better ratings in parking, grounds and office staff.
  - Quality of apartments varies in both places.
  - Number of reviews might be an important thing to consider.
- General: Need For Understanding Data Clearly
  - Perception of reviewers from DC and suburbs might be very different.
  - Need to standardize the response scale.