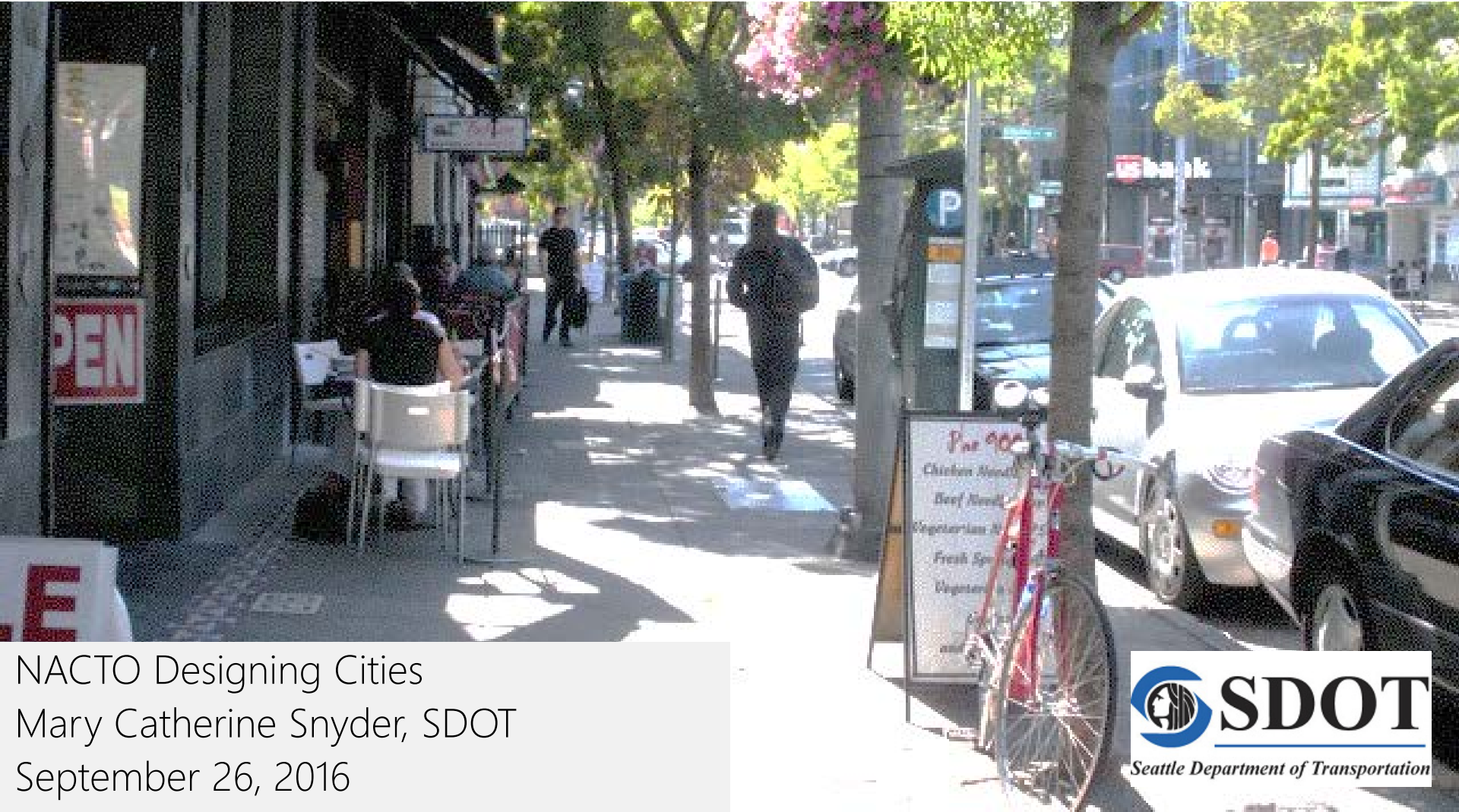


# Seattle's Performance Pricing Program: The Parking Crunch: Using Data that Matters!



NACTO Designing Cities  
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# Our mission, vision, and core values

**Mission:** deliver a high-quality transportation system for Seattle

**Vision:** connected people, places, and products

Committed to **5 core values** to create a city that is:

- Safe
- Interconnected
- Affordable
- Vibrant
- Innovative

For **all**

# Seattle parking by the numbers

	Mid-Year 2016
Paid spaces	11,850
Number of paid rate areas	30
Multi-space pay stations (kiosks)	1,830
Meters (single space)	0
CVLZ and Truck Load Zones (signs)	3,500
Restricted Parking Zones (RPZs)	33
Annual RPZ permits	30,000
e-Park facilities	16
Annual parking citations	~ 425,000
Parking Enforcement Officers (FTEs)	105
Annual paid parking revenue	\$36.7 M
Annual citations revenue (SMC)	\$26.1 M

# City law – Parking objectives codified

Seattle Municipal Code 11.16.121

- SDOT sets rates and adjusts based on measured occupancy so that approximately one or two open spaces are available on each block face throughout the day
- Within rate limits – between \$4 and \$1 / hour
- Paid parking rates set, and new paid areas goals to:
  1. Support neighborhood business districts, street parking encouraging access
  2. Maintain adequate turnover
  3. Encourage alt-modes with the effects of parking charges
  4. Reduce congestion caused by drivers circling for parking

# Performance-Based Parking Pricing Program

## AREA OF ASSESSMENT FOR OCCUPANCY

BELOW 65%  
Lower rate,  
consider splitting  
into subareas  
and increasing  
time limits.

WITHIN  
WATCH LIST  
Wait 1 year

WITHIN TARGET  
RANGE  
No action

WITHIN  
WATCH LIST  
Wait 1 year

ABOVE 90%  
Increase rate  
consider  
decreasing  
time limits.



65%

70%

85%

90%



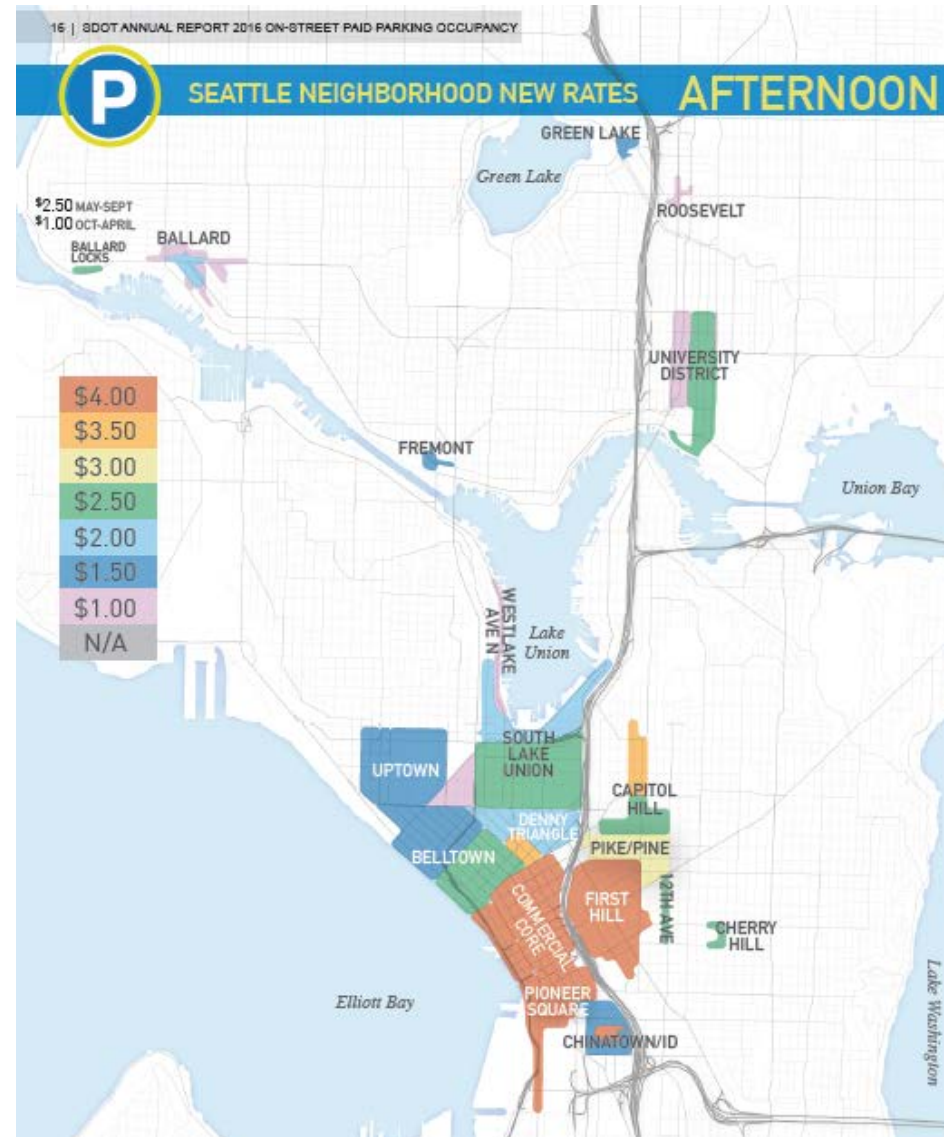
# Program evaluation

## Areas within target

	2013	2014	2015	2016
Areas within target	12	11	12	15
Total Areas	26	28	28	30
Percent within target	46%	39%	43%	50%

# 2016 Annual Study implementation

- ~ 40 rate changes this Fall and Winter
- New pay station equipment
- Time of day rates
- Evening paid parking until 8 PM where needed



# Adding paid parking

Performance metrics for new paid spaces: Consider new paid parking when 1-2 spaces are not open and available throughout the day

- blockfaces over 85% full and near ground-floor commercial
- where time-limit signs and data results show length of stays longer than max time





# Mobile parking payment

Data integration between vendors and SDOT  
Emphasizing phone payment with asset lite  
plan for fewer pay stations

	Dec-13	Dec-14	Dec-15	Jun-16
Paid spaces	11,900	11,600	12,200	12,000
PayByPhone transactions	24,500	66,000	106,100	123,200
Total transactions	904,900	932,100	950,700	975,800
Percent use by phone	3%	7%	11%	13%

# How can we help people make smarter driving decisions?

- Open Data
- Public – private partnerships
- Intentional goal – to make parking program data available to help drivers make smarter parking decisions

# Parking data-sharing

## Data feeds

- Parking transactions
- Real-time space inventory
- Sign records
- Rates, hours of operations
- Public parking garages
- e-Park real time garage data



### SDOT Street Parking Signs

Transportation

Displays signs installed and maintained by the Seattle Department of Transportation right of way. The inventory is maintained in SDOT's Infor/Hansen Asset Management S

[More](#)

Topics parking, signs, traffic, transportation

### SDOT Public Garage or Parking Lot

Transportation

Displays the locations of off street garages and lots along with information such as rates, or name, etc. Off street garages participating in the e-Park program also display the availability

[More](#)

Topics city of seattle, e-park, garages, lots, parking, and 3 more

### SDOT Restricted Parking Zones

Transportation

Displays the locations of all the Restricted Parking Zones in the City of Seattle.

Topics parking, rpz, sdot, seattle, zones

### Seattle Parking Transactions

Transportation

This parking transaction data set results from transactions at parking within city limits and transactions from th

[More](#)

# Predictive modeling project

Project goal:

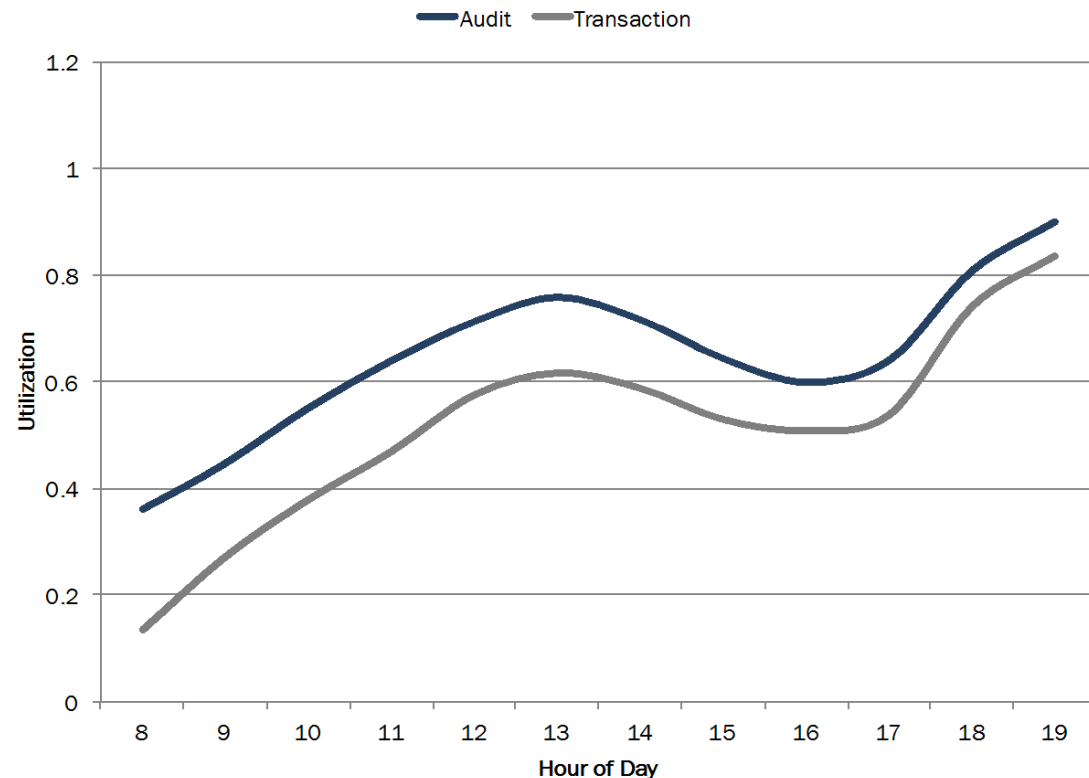
Examine technical feasibility to use transaction data for data collection and parking management decisions

Major Tasks:

- Transform transaction records to 15 min. occupancies by blockface
- Test model that uses blockface characteristics and transaction data to represent actual blockface occupancy

# Transaction data limitations

- Vehicles that don't pay (disabled permits, exempt vehicles, carshare)
- Over and underpayment
- Pay on one blockface, parking on another
- All these issues vary by day of week and time of day



# Where do we go from here?

- Continue to build predictive model with City, University of Washington, and various vendor resources
- Annual Parking Study adjustments
  - Add timestamp of hourly data collection for better tracking
  - Get smarter on where and when to collect data
- Work with other cities to develop and learn best practices

# Questions?

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[www.seattle.gov/transportation](http://www.seattle.gov/transportation)

