

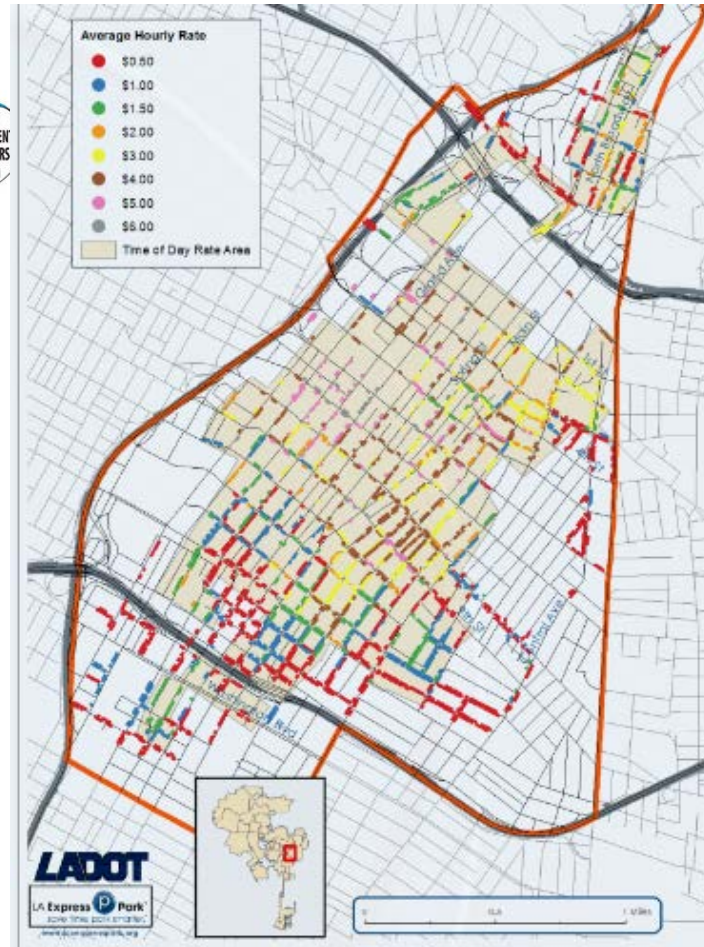
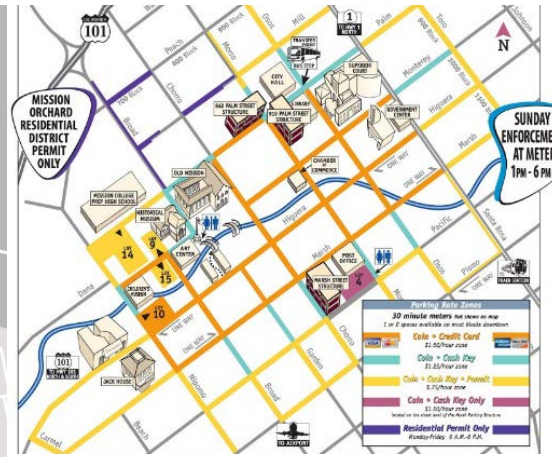
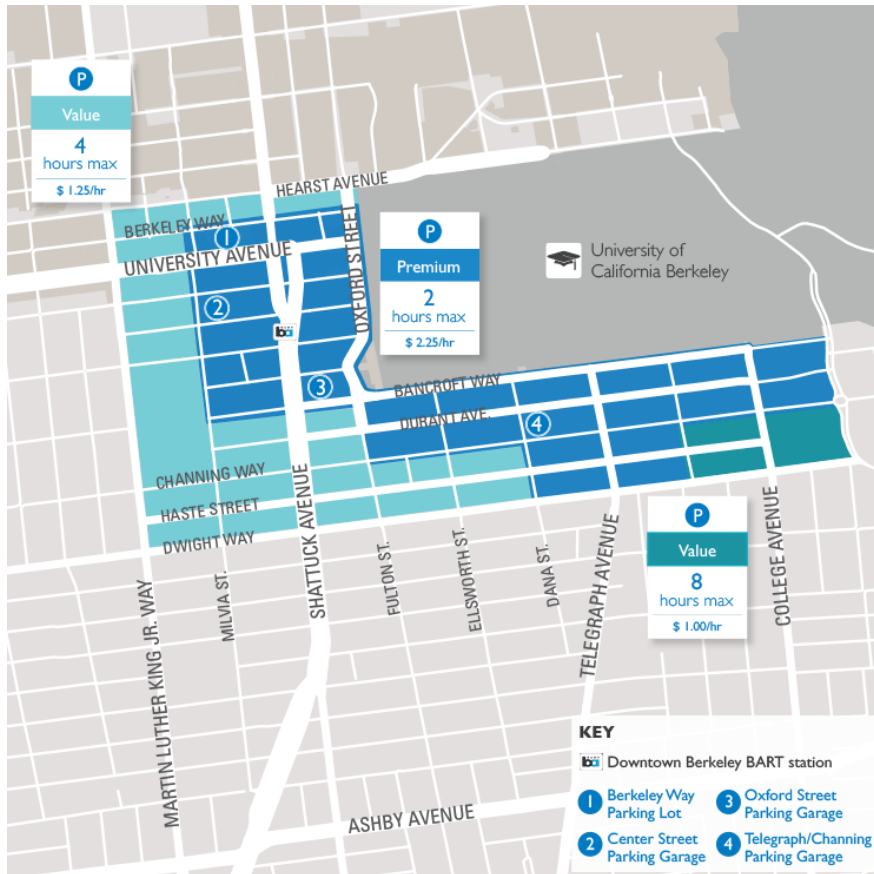
SF *park*

CIRCLE LESS, LIVE MORE

What to expect

- Background & overview
- Preparations
- Implementation
- Evaluation
- Next steps & lessons learned

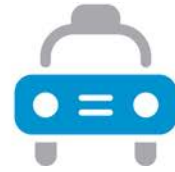
Many options



Part 1: Background & overview



The SFMTA



What is parking like in San Francisco?

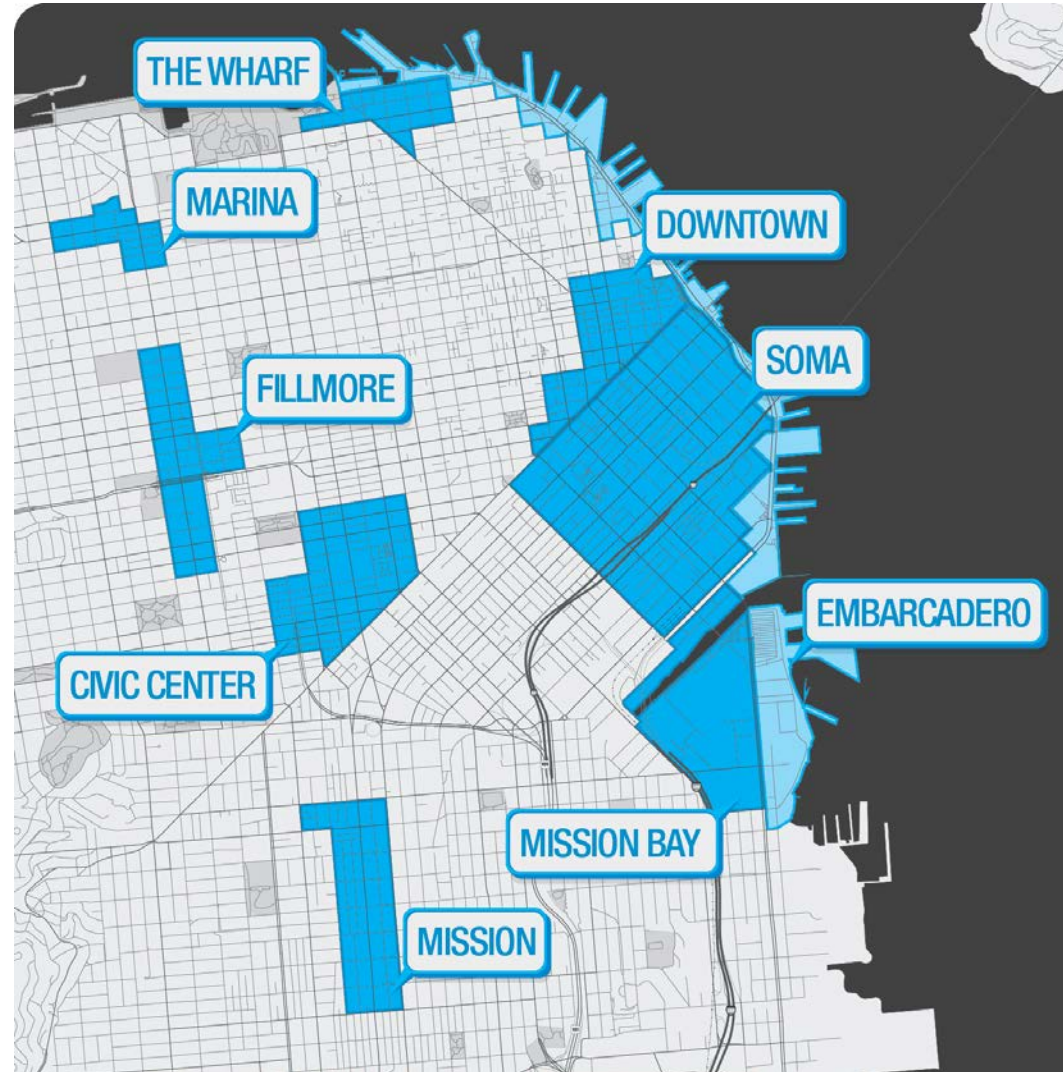


How did we get here?

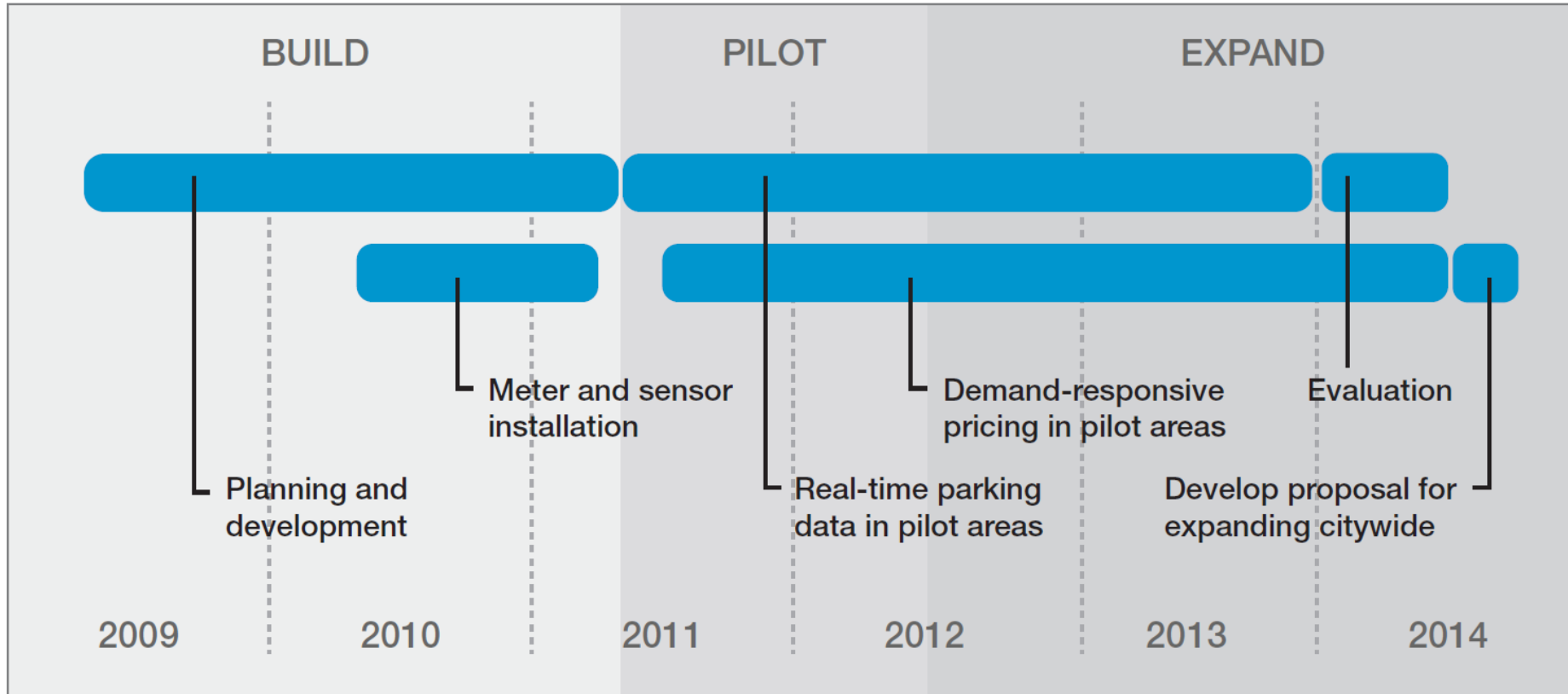


San Francisco Mayor Lapham operating the first parking meter installed in San Francisco in 1947

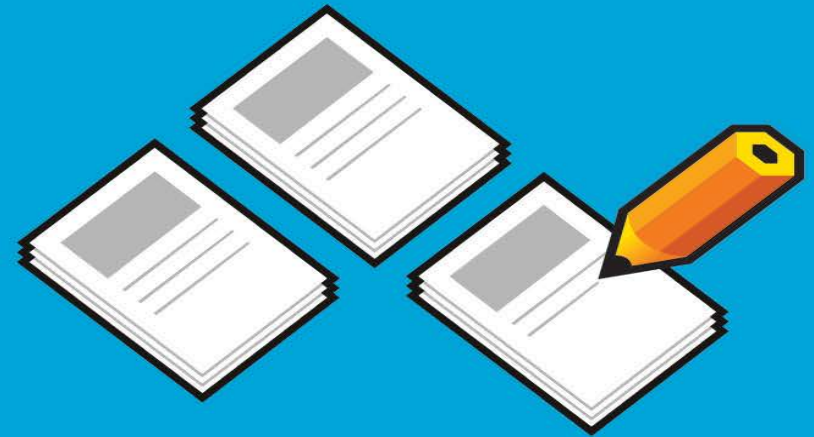
SFpark: A new approach to parking



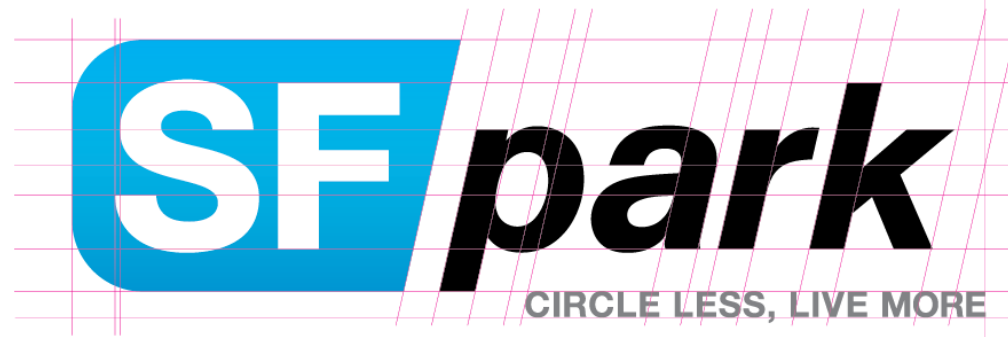
Timeline



Part 2: Preparations



Identity and brand management



Creating a cohesive identity

New Coin & Card Meters

Coming to the Financial District
August–September

Pay by coin, credit & debit card,
and SFMTA parking card.

Meter Upgrade Locations

From August to September, the San Francisco Municipal Transportation Agency (SFMTA) will replace around 415 existing parking meters with the new SFpark coin & card meters throughout the neighborhood. The state-of-the-art meters are easy to use and allow drivers to pay in multiple ways.

Learn more at SFpark.org

SFpark SFMTA Municipal Transportation Agency

SFpark: Circle Less, Live More

The new coin & card meters are part of the SFMTA's SFpark project, a two-year federally funded pilot of new parking management technologies and approaches. The goal is to make parking easier to find and pay for, and to reduce double-parking and circling. Better management of parking will open our streets and result in cleaner air, improved safety, faster Mass times and improved access for commercial and emergency vehicles.

Find Parking More Easily

To help drivers find open spaces quickly, real-time parking availability data will be accessible via SFpark.org, 311, text message, smart phone applications and electronic message signs. This data will come from City-owned parking garages and parking sensors at metered spaces in eight pilot neighborhoods.

Smarter Parking Pricing

Redistributing parking demand will ensure there is usually at least one space available per block. SFpark will adjust meter prices periodically to encourage drivers to park on underused blocks and in garages. While high-demand spaces will gradually go up in price, underused spaces will cost less. The SFMTA will charge the lowest price that ensures at least one space per block is available most of the time, and that garages almost always have a space. Demand-responsive pricing will start early 2011.

Get Fewer Parking Tickets

When the new pricing goes into effect, time limits will also be relaxed, making parking at meters even more convenient. With longer time limits and many ways to pay, it will be easy for drivers to avoid parking tickets.

Learn more at SFpark.org

New Coin & Card Meters

Coming to the Financial District
August–September

SFpark SFMTA Municipal Transportation Agency

Upgraded Meters for the Financial District

From August to September, the San Francisco Municipal Transportation Agency (SFMTA) will replace around 415 existing parking meters with the new SFpark coin & card meters throughout the neighborhood. The state-of-the-art meters are easy to use and allow drivers to pay with coins, credit/debit cards and SFMTA parking card.

SFpark SFMTA Municipal Transportation Agency

Single-Space Meters

Illuminated Display
View parking rates, hours, time limits and other important information.

Coin Payment
Insert coins for desired time. Use nickels, dimes, quarters or dollar coins.

Card Payment
Insert and remove credit/debit card. Adjust payment amount with **+** buttons. Press **0** button. If using an SFMTA parking card, leave card in throughout transaction.

Multi-Space Meters

Illuminated Display
View parking rates, hours, time limits and other important information.

Keypad
Enter your space number first. Your space number is located on the curb next to your car. **07**

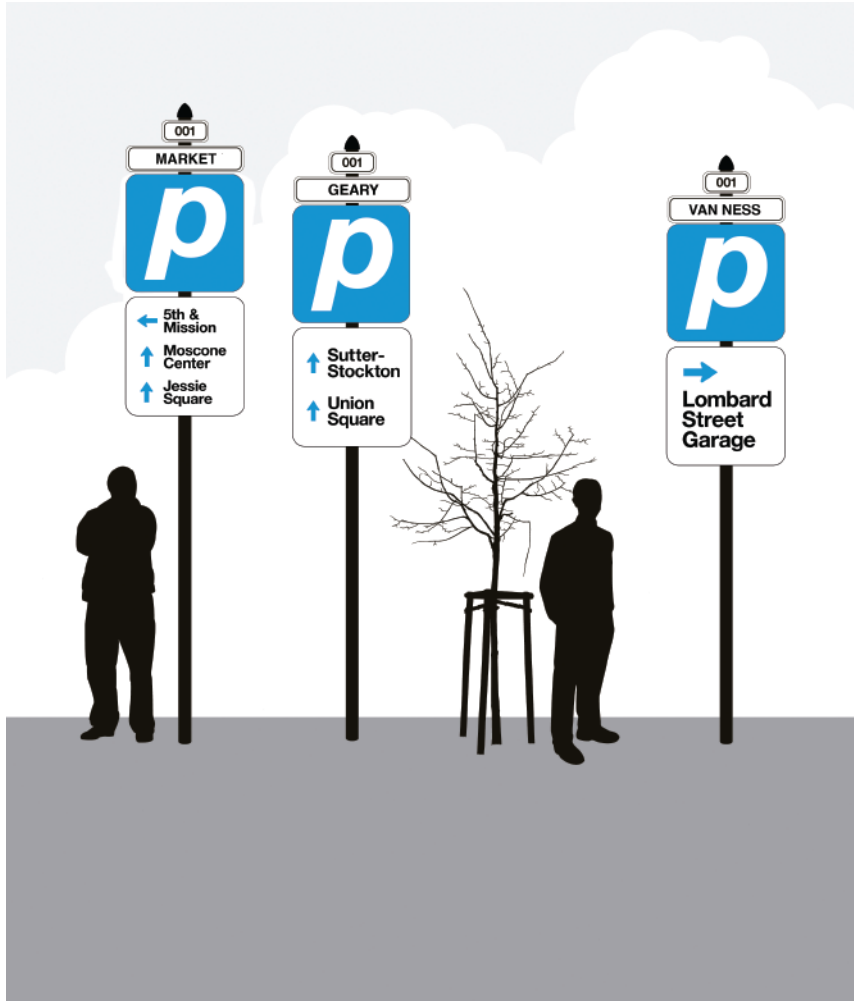
Coin Payment
Enter space number. Insert coins for desired time. Use nickels, dimes, quarters or dollar coins. The meter does not dispense change.

Card Payment
If using a credit/debit card, enter space number, then press **+**, **0**, **+** and **0** to change time. Press **+** to confirm. Insert and remove card to complete transaction. If using an SFMTA parking card, enter your space number, insert the card (chip side up) and remove your card when the desired time is reached. No receipt is necessary.

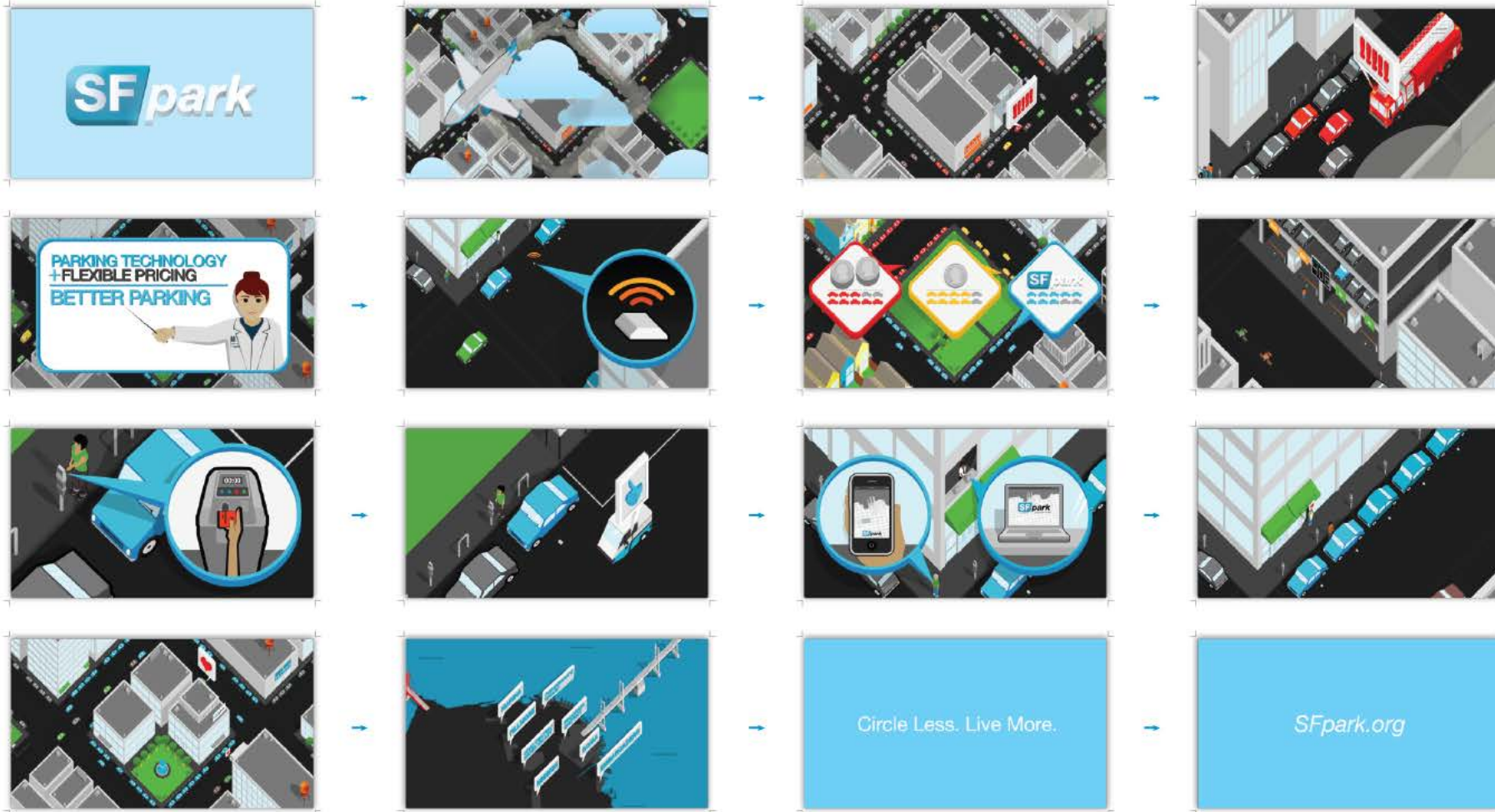


SFpark
CIRCLE LESS, LIVE MORE


Wayfinding signs



Framing and messaging



Outreach


Japan Center Garage

New rates effective August 17

Hourly

Midnight–9am	\$1.50/hr
9am–Noon	\$2.00/hr
Noon–3pm	\$2.50/hr
3pm–6pm	\$2.00/hr
6pm–Midnight	\$1.50/hr

Charged in 30-minute increments

Daily

Early Bird (Mon-Fri)	\$12
Maximum/lost ticket (Mon-Sun)	\$18
Motorcycle	\$6

*Enter before 7:30am and exit after 7:00pm
Must enter and exit on same calendar day*

Monthly Effective September 1



Regular	\$170
Regular M-F	\$130
Reserved	\$255
Carpool/carshare	\$85
Motorcycle	\$60



Off-Peak Discounts New!


Enter before 7:30am (Mon-Fri)	\$2.00 off
Exit after 7:00pm (Mon-Fri)	\$2.00 off

*Valid only for hourly parkers
Must enter and exit on same calendar day
Must park for at least 3 hours*


Garage upgrades

- Facility upgrades**
New signage, paint and lighting will make garages more welcoming and easier to use. 
- Demand-responsive prices**
To attract drivers and make sure spaces are almost always available, rates at garages will be adjusted quarterly in response to demand. They may also vary by the time of day and day of week. 

- Off-peak discounts**
Save money at this garage by parking when there is less traffic, before 7:30 am and after 7:00 pm. Driving "off-peak" eases congestion and helps Muni run faster. 
- Transparent pricing**
All rate adjustments will be announced in advance on SFpark.org. To see how prices are set, visit SFpark.org/rates. 


Municipal Transportation Agency
SFpark.org/garages


Find SFpark rates



4 hr limit
9a-12p: \$4.75
1p-3p: \$2.00
3p-6p: \$2.25

Meters

SFpark meters display the current hourly rate as well as rate information for the full day. When you add funds, the meter automatically adds the appropriate amount of time.



Apps

Download the SFpark app at SFpark.org/apps to check real-time parking availability and rates on your iPhone. An SFpark Android app is coming soon.

SFpark.org

Visit the homepage for an interactive map of current availability and rates. SFpark.org/rates features complete rate adjustment information including maps showing pilot areas and affected streets. All new rates will be posted at least seven days in advance.

- The SFpark Pilot Project**

SFpark is a federally funded pilot project that aims to make it easier to park in San Francisco, reducing traffic and other problems caused by circling and double-parking. This is done using smarter demand-responsive pricing and providing drivers better information about where to find parking. At SFpark meters, drivers will have longer time limits and new meters that make it easy to pay. SFpark garages will undergo facility upgrades that make them more convenient to use.

www.SFpark.org



Lombard Street Garage New Rates

Hourly

Midnight – 9am	\$2.00/hr
9am – Noon	\$2.50/hr
Noon – 3pm	\$2.50/hr
3pm – 6pm	\$2.00/hr
6pm – Midnight	\$2.00/hr

Charged in 30-minute increments

Daily

Daily maximum/lost ticket	\$22
Early bird*	\$15

**Enter before 7:30am and exit after 7:00pm M-F*

Monthly

Monthly	\$220
Monthly (reserved parking)	\$330
Monthly (carpool/carshare)	\$110

Off-peak discounts new!

Enter before 7:30am M-F	\$2.00 off
Exit after 7:00pm M-F	\$2.00 off





*Applies to hourly rates only
Must park for at least 3 hours*

Motorcycle

Monthly	\$40
---------	------

SFMTA | Municipal Transportation Agency

New upgrades for the City's 14 SFpark garages

- Facility upgrades**
New signage, paint and lighting will make garages more welcoming and easier to use. 
- Demand-responsive prices**
To attract drivers and make sure spaces are almost always available, rates at garages will be adjusted quarterly in response to demand. They may also vary by the time of day and day of week. 
- Off-peak discount**
SFpark offers a discount to encourage customers to drive and park when there is less traffic, easing congestion and clearing the streets so Muni can move faster. 
- Transparent pricing**
All price changes will be announced in advance on SFpark.org. To see how prices are set, visit SFpark.org/pricing. 

SFpark.org/garages

Advertising

SFpark
SMALL CARS. BIG BENEFITS.

SFPARK.ORG
PARKING AVAILABILITY & PRICING

The Benefits of SFpark: **no. 1** Cleaner Air, **no. 2** Safer Streets, **no. 3** Quicker Transit. Learn more about the benefits of SFpark at SFPark.org. Brought to You By **SFMTA**.

This advertisement features a vibrant, stylized illustration of a waterfront scene. In the background, the Golden Gate Bridge spans across a blue body of water. A sailboat with a yellow sail is in the center, and a small boat is to its left. In the foreground, a white car is parked on a street next to a parking meter. A large blue speech bubble contains the text 'SFPARK.ORG' and 'PARKING AVAILABILITY & PRICING'. The SFpark logo is in the top left corner. At the bottom, there is a section titled 'The Benefits of SFpark' with icons for 'no. 1 Cleaner Air', 'no. 2 Safer Streets', and 'no. 3 Quicker Transit'. It also includes the text 'Learn more about the benefits of SFpark at SFPark.org' and 'Brought to You By SFMTA'.

SFpark
SMALL CARS. BIG BENEFITS.

SFPARK.ORG
PARKING AVAILABILITY & PRICING

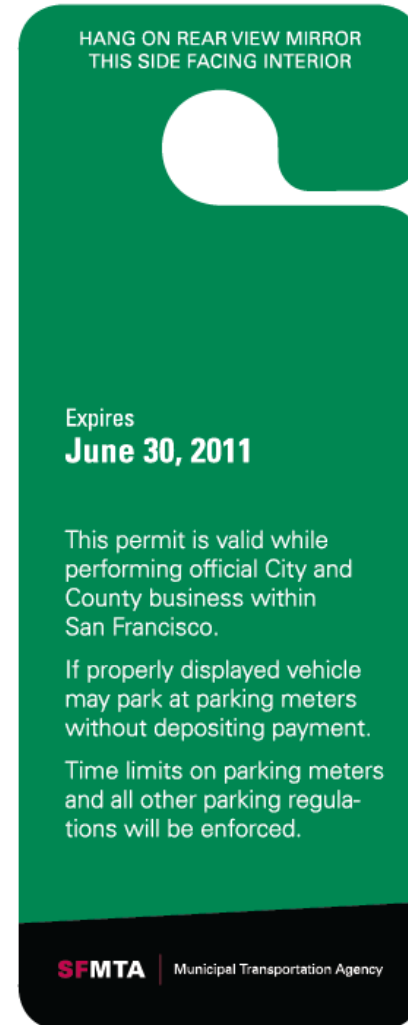
The Benefits of SFpark: **no. 1** Cleaner Air, **no. 2** Safer Streets, **no. 3** Quicker Transit. Learn more about the benefits of SFpark at SFPark.org. Brought to You By **SFMTA**.

This advertisement features a stylized illustration of a city street scene. In the background, there are several multi-story buildings with windows. A sign on one of the buildings reads 'BURRITOS TORTAS Y MAS'. A street lamp is visible. In the foreground, a white car is parked on a street next to a parking meter. A large blue speech bubble contains the text 'SFPARK.ORG' and 'PARKING AVAILABILITY & PRICING'. The SFpark logo is in the top left corner. At the bottom, there is a section titled 'The Benefits of SFpark' with icons for 'no. 1 Cleaner Air', 'no. 2 Safer Streets', and 'no. 3 Quicker Transit'. It also includes the text 'Learn more about the benefits of SFpark at SFPark.org' and 'Brought to You By SFMTA'.

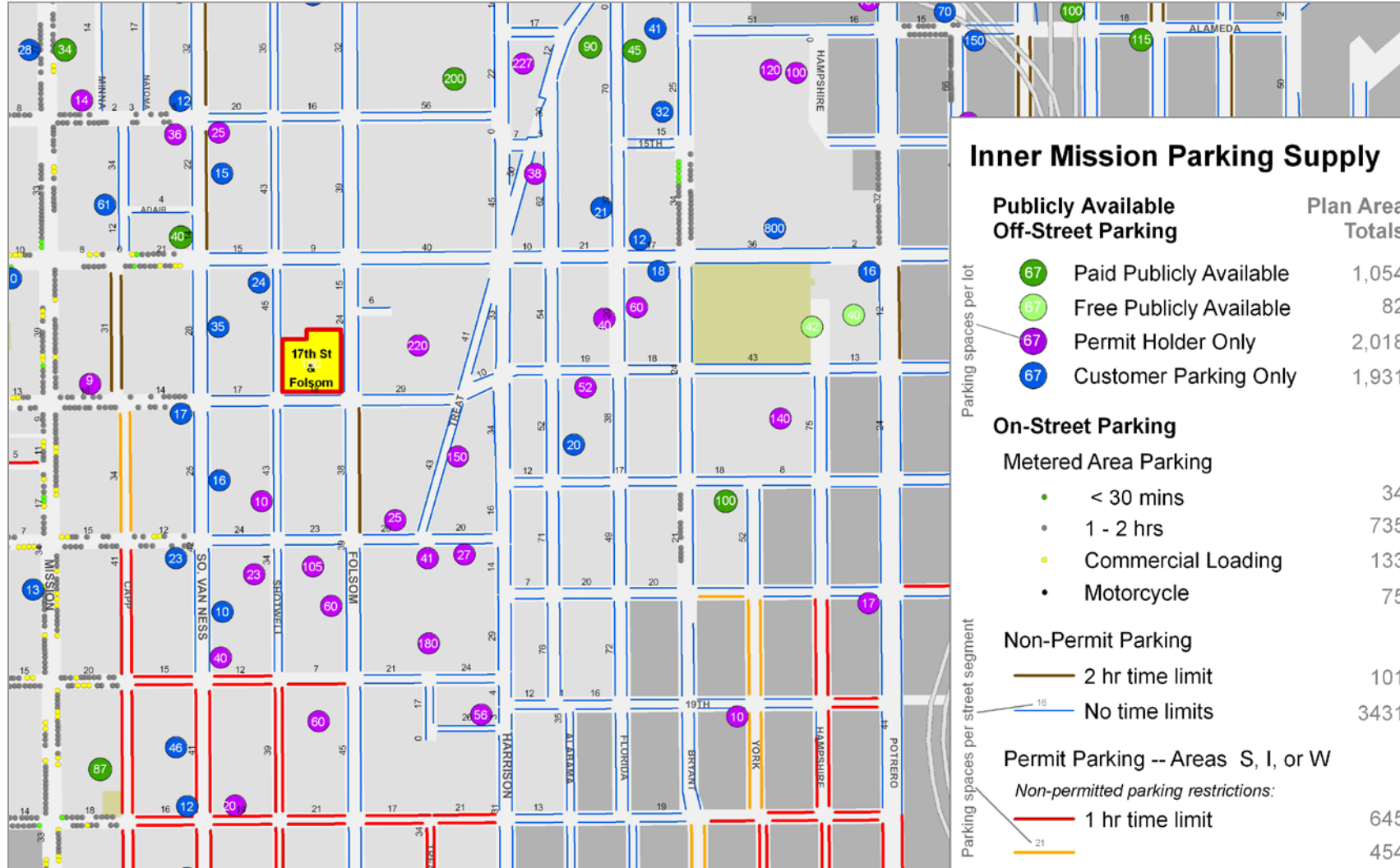
Advertising



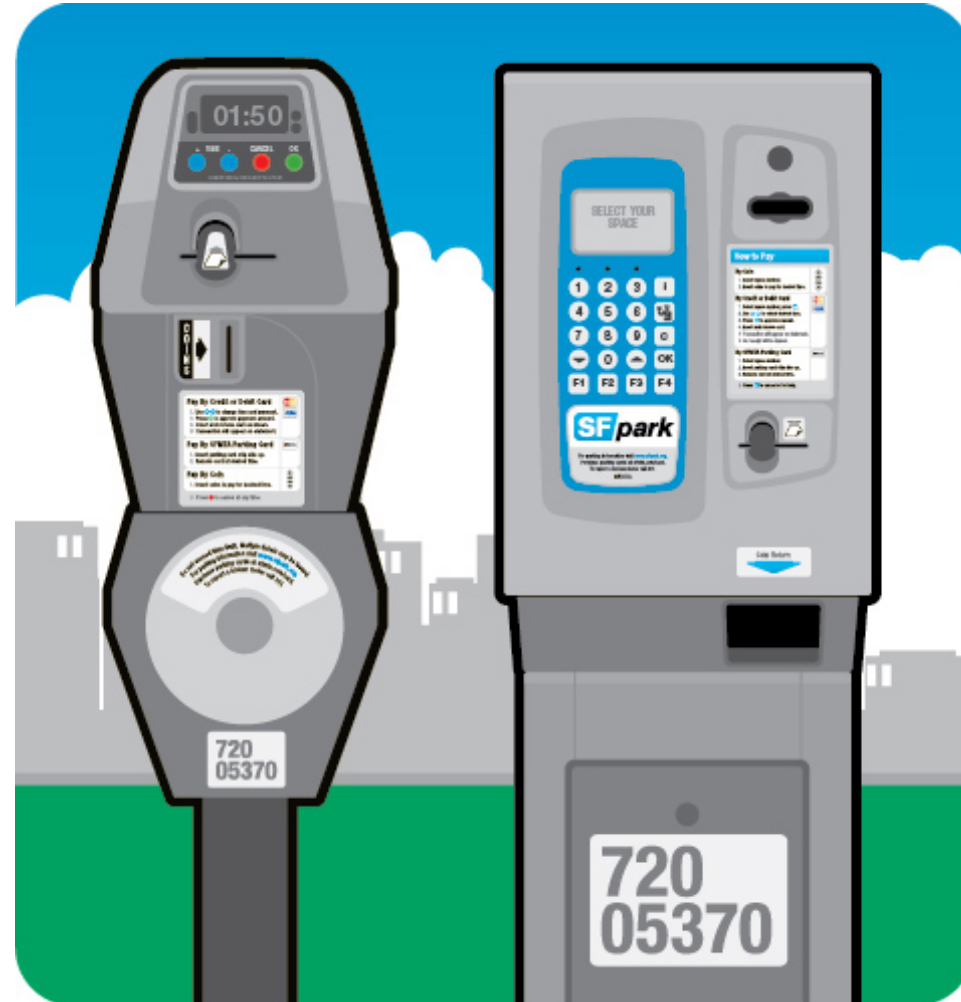
Managing employee parking



Parking census



Coin and card meters



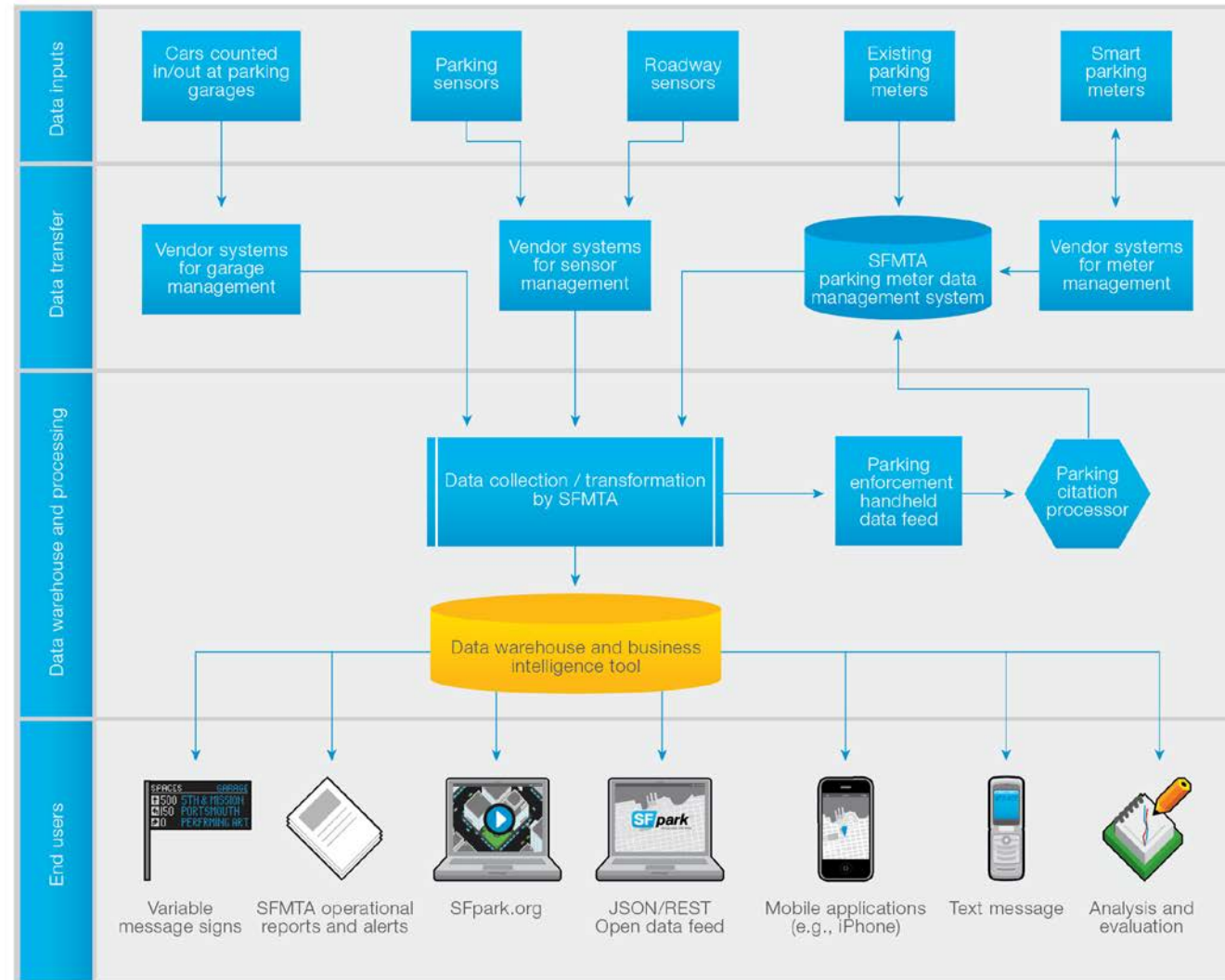
Parking sensors



Data inputs



IT infrastructure: SFpark technical system



Parking space inventory: meter database

Manage Parking Spaces - Map

Spaces | Blockfaces | Blocks | PM Districts | Neighborhoods

Open Map in a new window

SFPark

Layers

- Overlays
 - spaces
 - city_curbs
- Base Layers
 - None
 - Terrain Map
 - Satellite Map
 - Hybrid Map
 - Road Map

spaces.124384

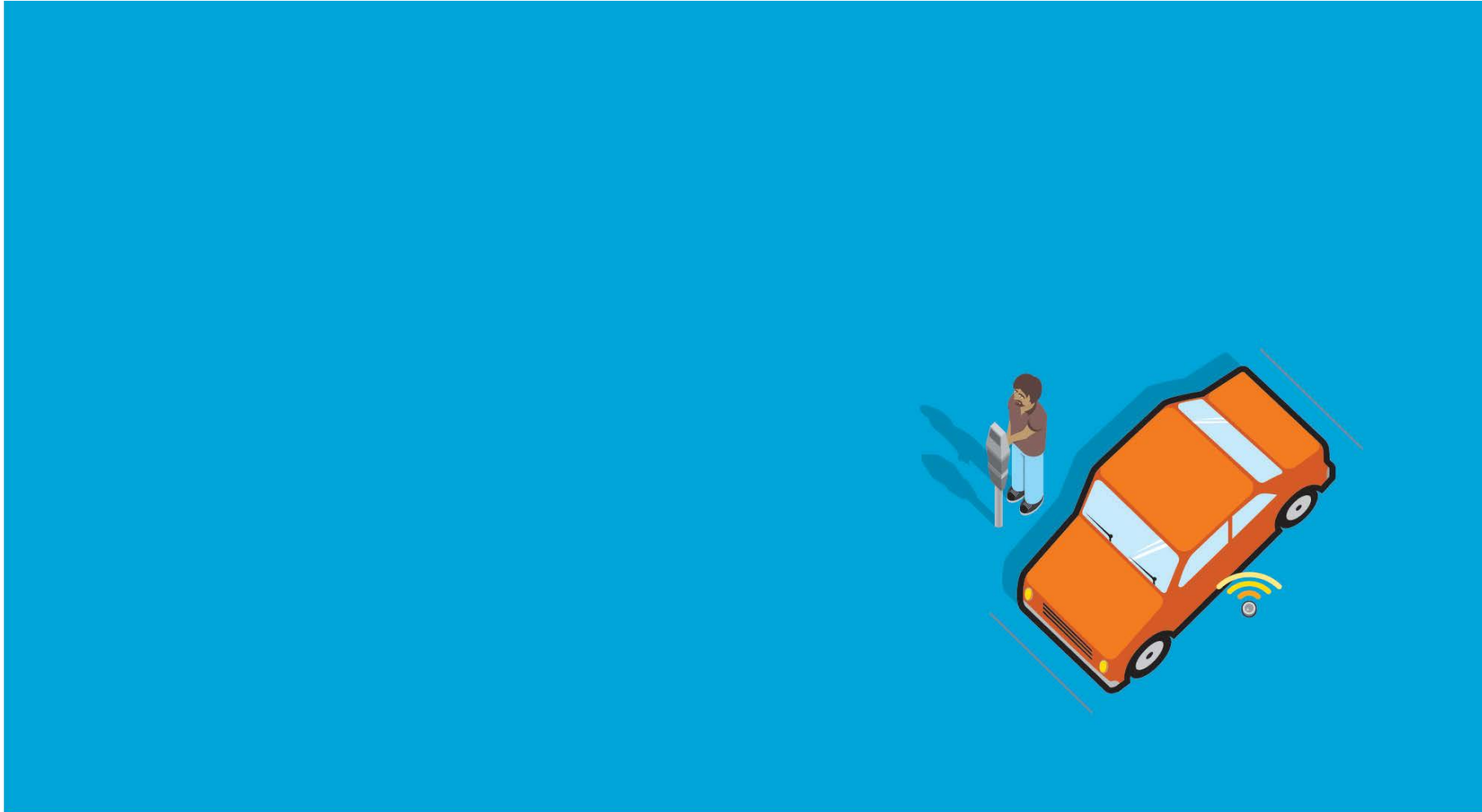
Space Attributes | Street View

Post ID:	217-32060
Cap Color:	Grey
Created Date:	2010-10-02T01:23:33Z
Modified Date:	2013-03-18
Sensor Flag:	C
Space Number:	0

Edit Delete

Map data ©2013 Google, Sanborn

Part 3: Implementation



Demand responsive rate adjustments

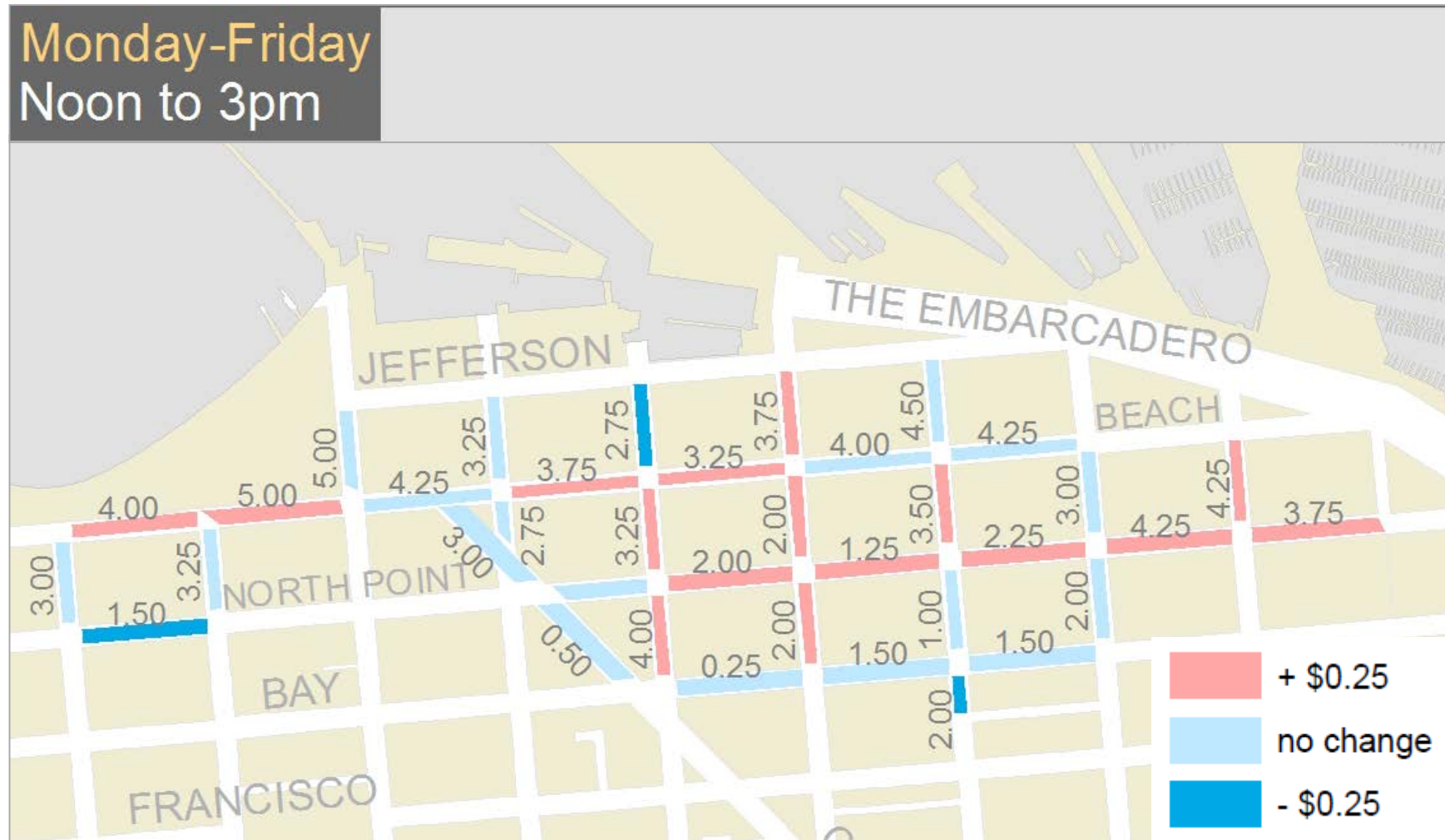
Occupancy Range	Rate Adjustment
80% - 100%	+\$0.25
60% - 80%	No change
30% - 60%	-\$0.25
0 - 30%	-\$0.50

Pricing by time of day

- Demand responsive to find lowest possible prices
- Gradual and periodic changes: \$0.25 up or down every 6-8 weeks
- Time of day pricing (vary by block + weekday/end)

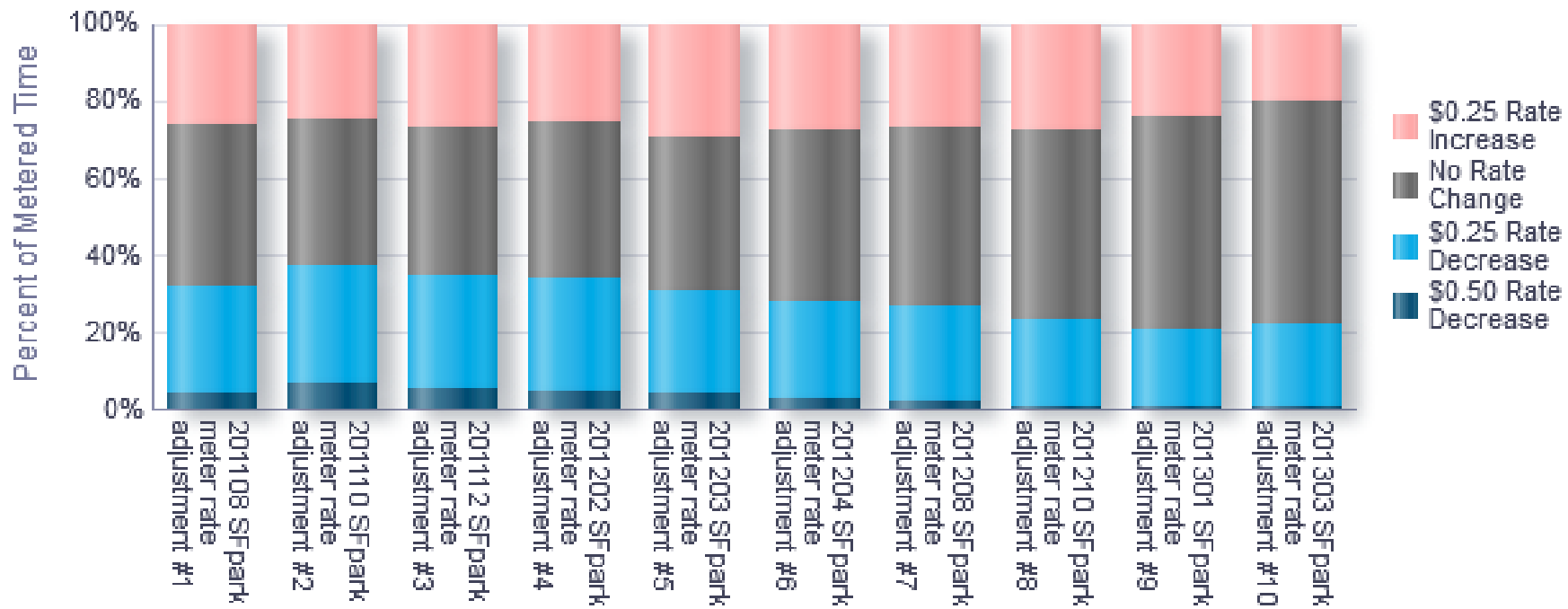


Demand responsive rate adjustments

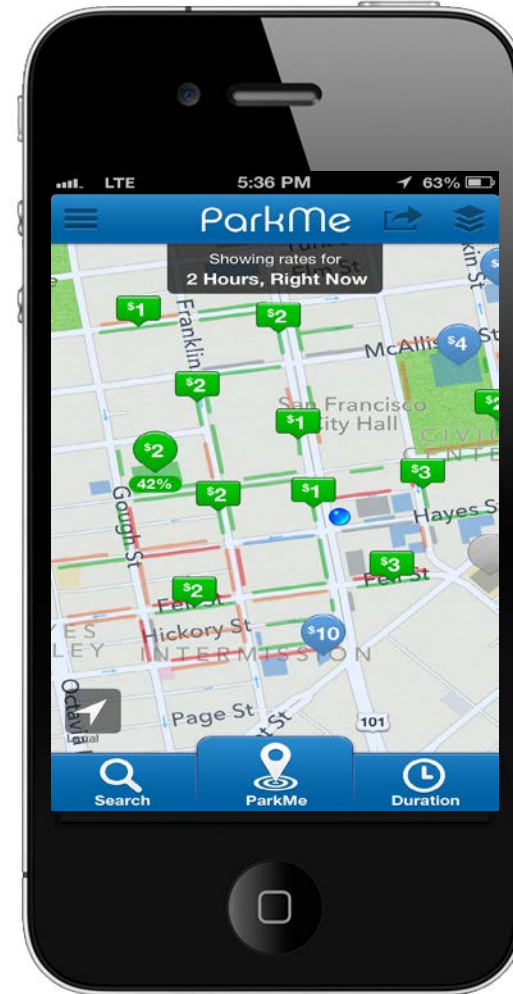
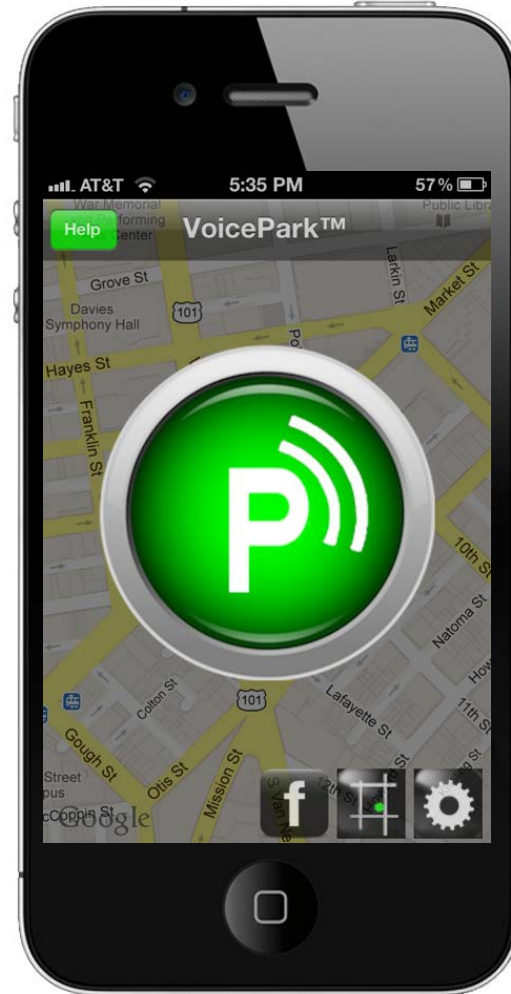


Demand responsive rate adjustments

Rate Change Distribution by Metered Hours

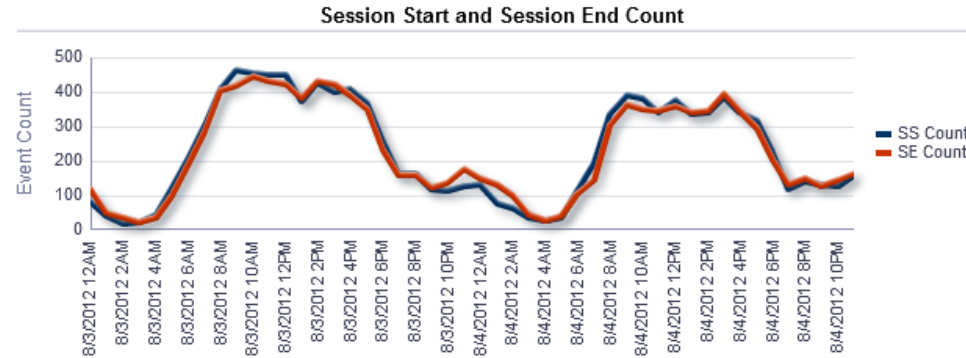


Real-time parking information

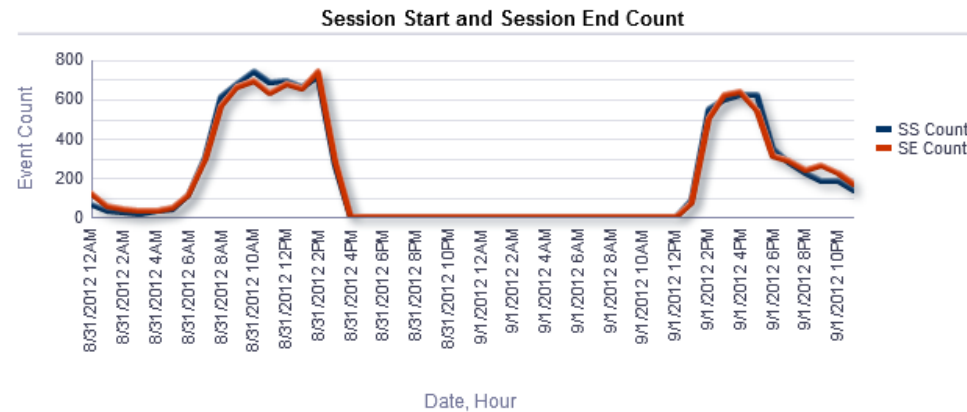


Parking sensor quality control

Typical behavior



Atypical



Special event pricing + evening hours



Pricing at SFpark parking garages



Performing Arts Garage

Hourly

Midnight – 9am	\$1.00/hr
9am – Noon	\$2.00/hr
Noon – 3pm	\$4.00/hr
3pm – 6pm	\$1.00/hr
6pm – Midnight	\$1.00/hr

Off-Peak Discounts *Mon–Fri*

Enter before 8:30am	\$2 off
Exit after 6:30pm	\$2 off

*Must enter and exit on same calendar day
Must park for at least 3 hours*

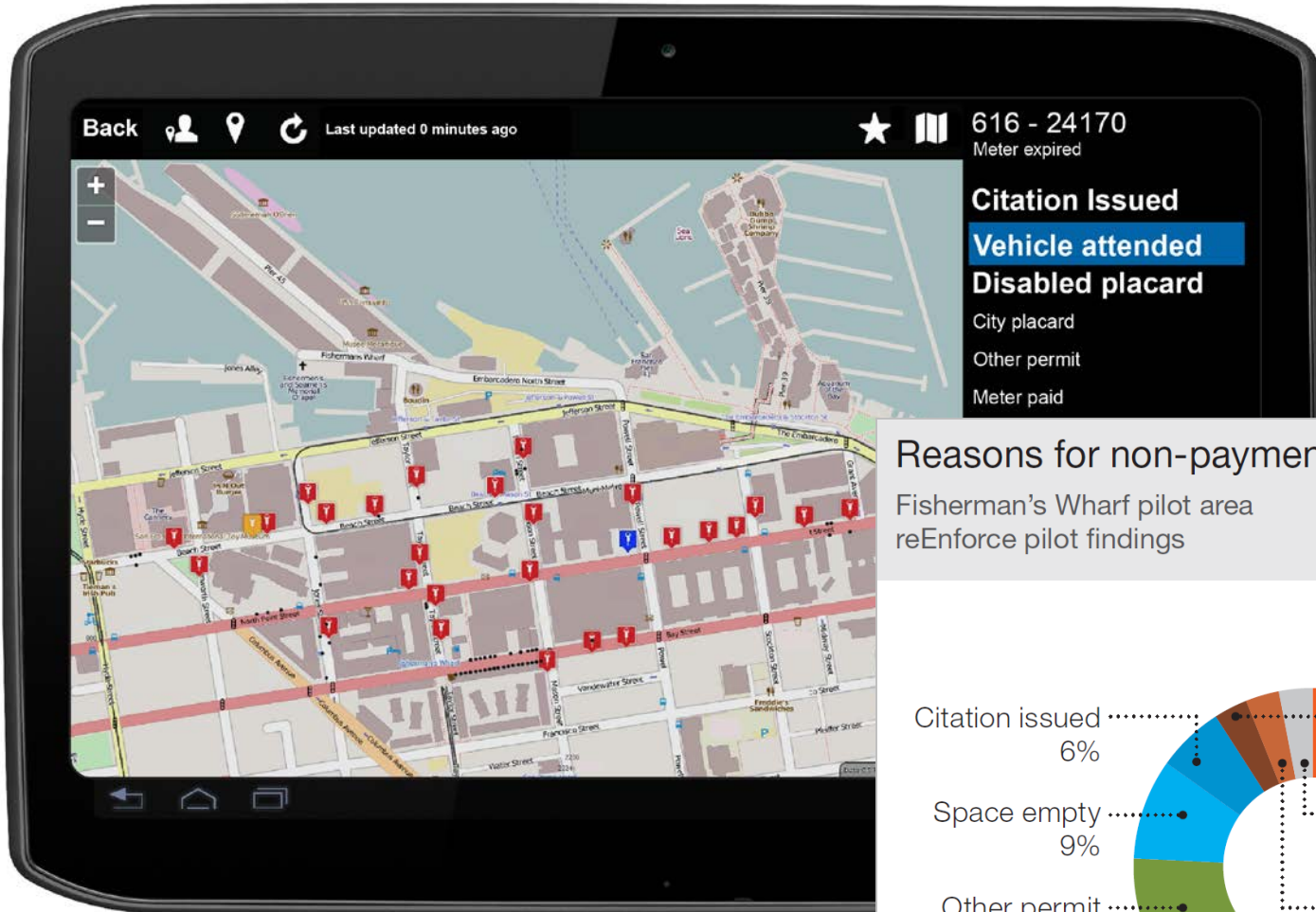
Making garages more appealing



Enforcement

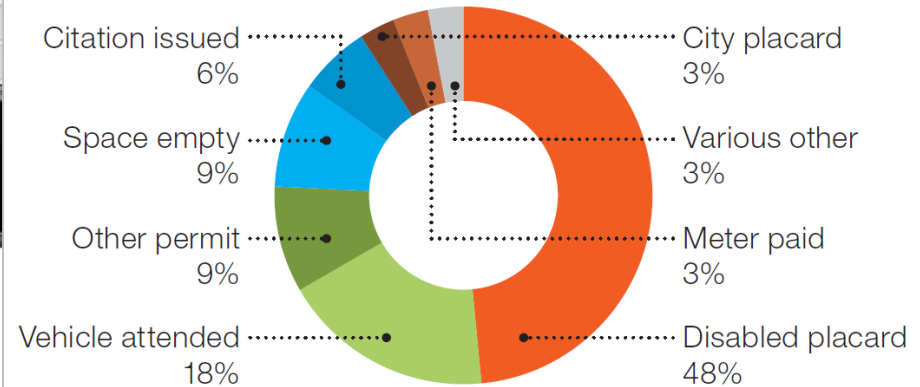


reEnforce: Enforcement real-time data pilot

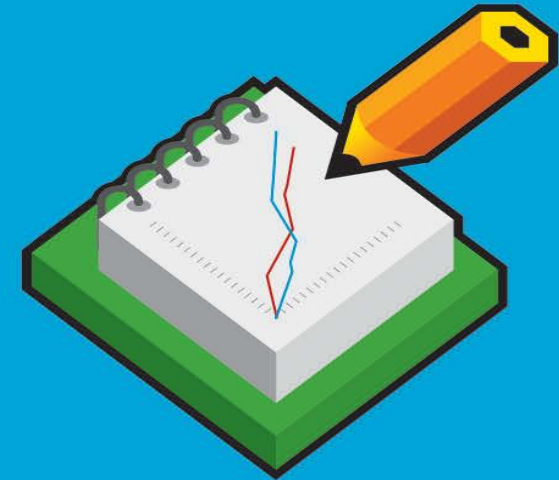


Reasons for non-payment

Fisherman's Wharf pilot area
reEnforce pilot findings



Part 5: Data collection and evaluation



Automatic data

- Parking data (from sensors, meters, and citations)
- Garage data (usage by hour)
- Travel demand data (roadway sensors, highways PEMS, BART, Muni)
- Muni data (travel time data from APCs)
- Parking tax
- Sales tax
- Exogenous (fuel price, CPI, unemployment, precipitation)

Manual data

- Parking census
- Parking search time
- Double parking and disabled placard
- Intercept surveys (professional survey firm)

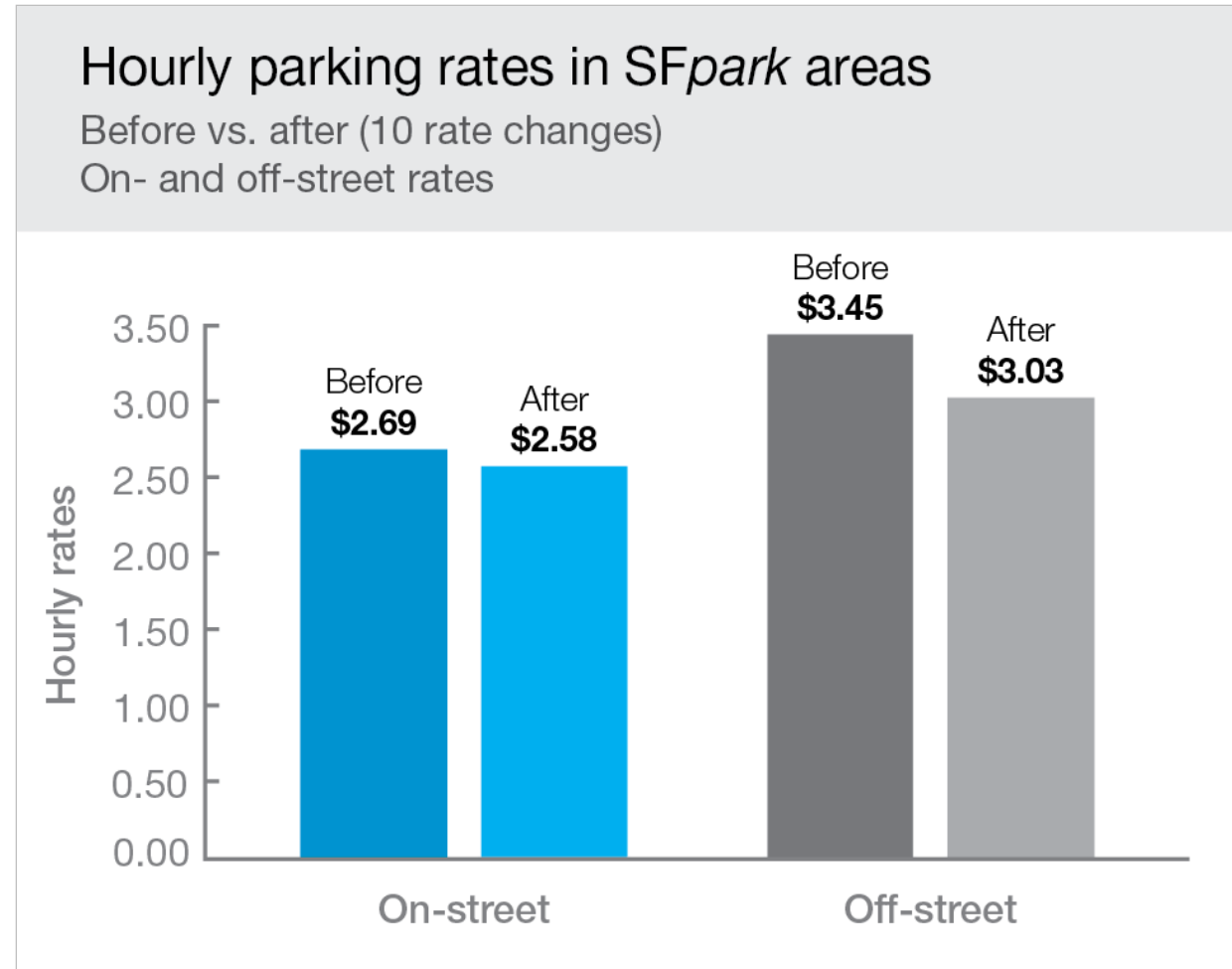
Acquire + understand + clean + structure data



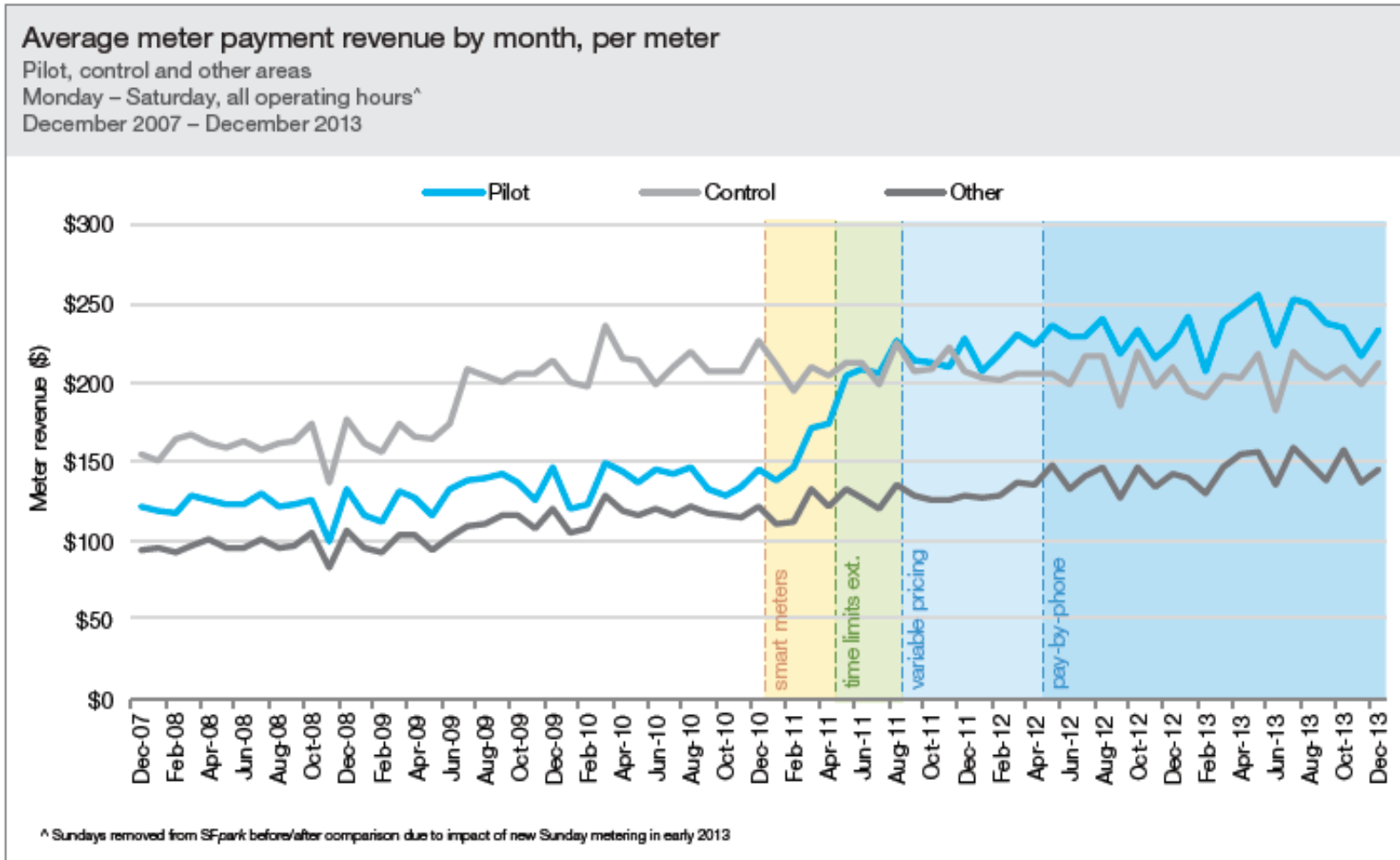
Benefits we expected

- Easier to pay and avoid citations
- Easier to find a parking space
- Parking spaces better utilized
- Less circling
- Fewer vehicle miles traveled
- Fewer greenhouse gas emissions
- Decreased double parking
- Improve Muni speed
- Increased economic vitality and safety

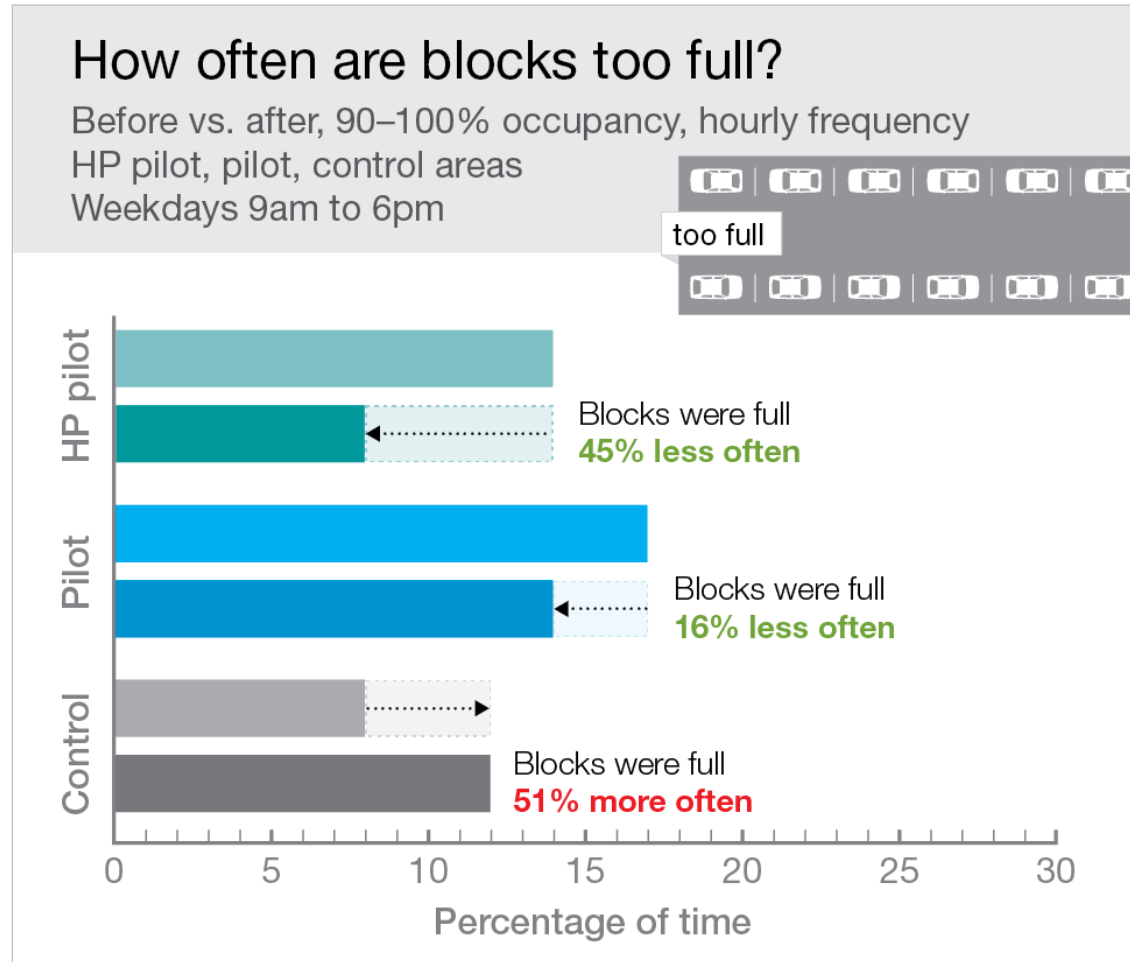
How did rates change?



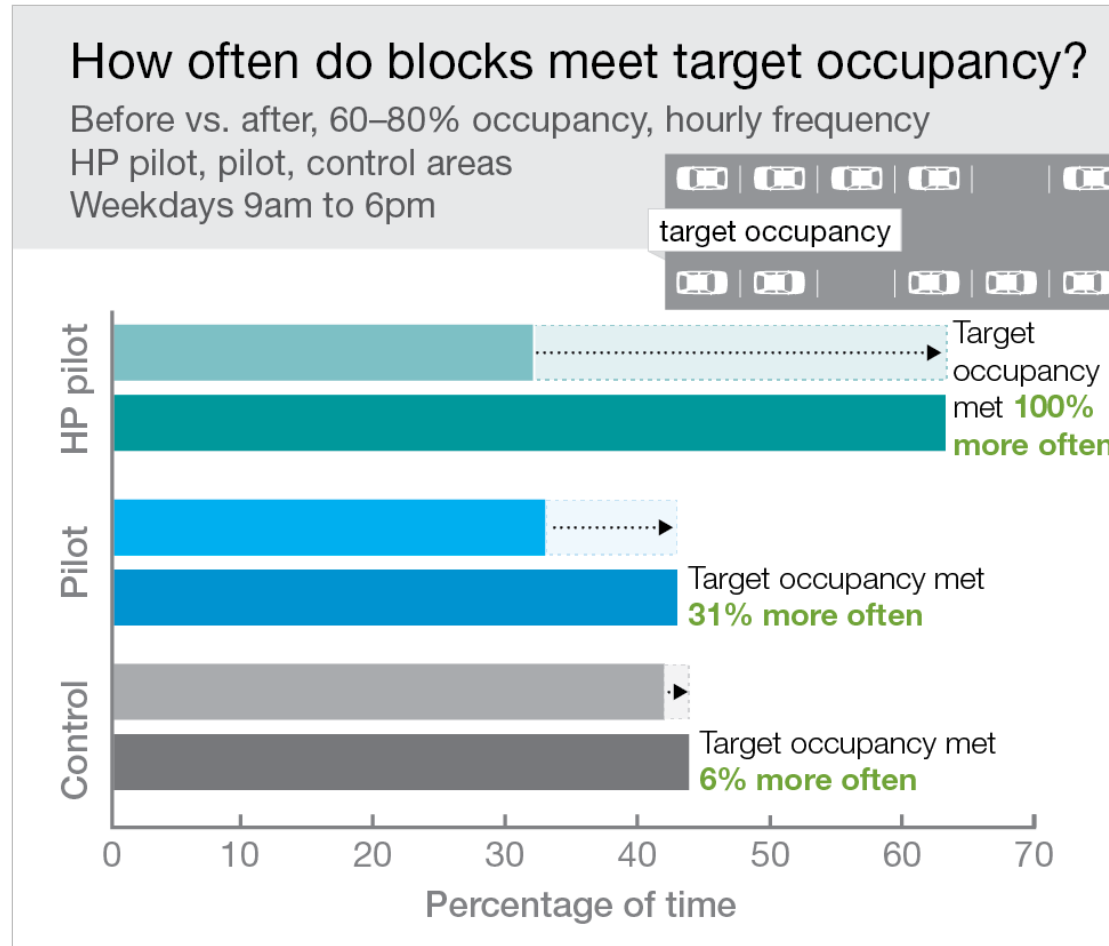
How did it impact revenue?



Was it easier to park?

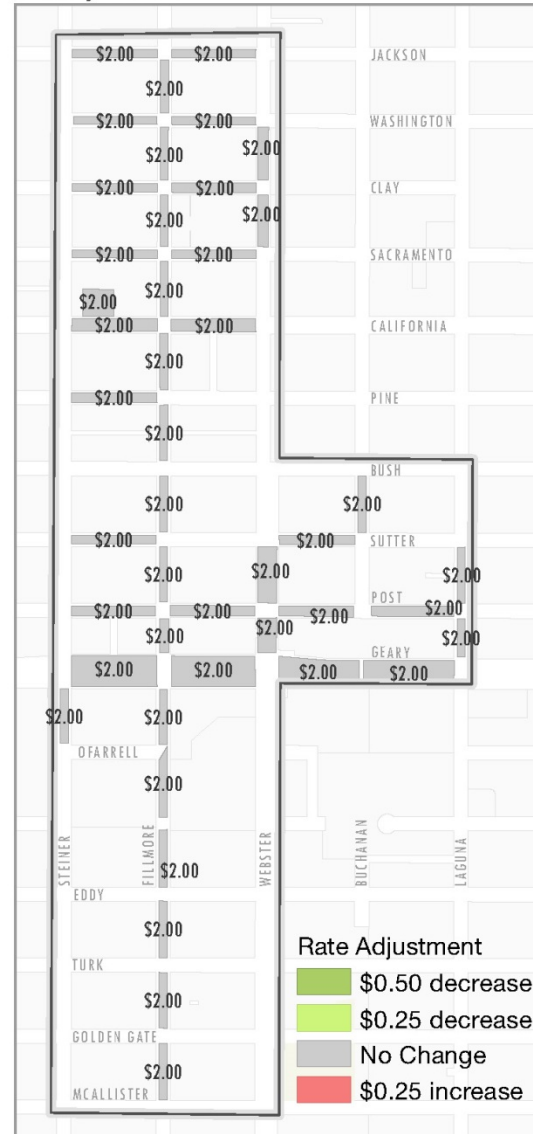


Was it easier to park?

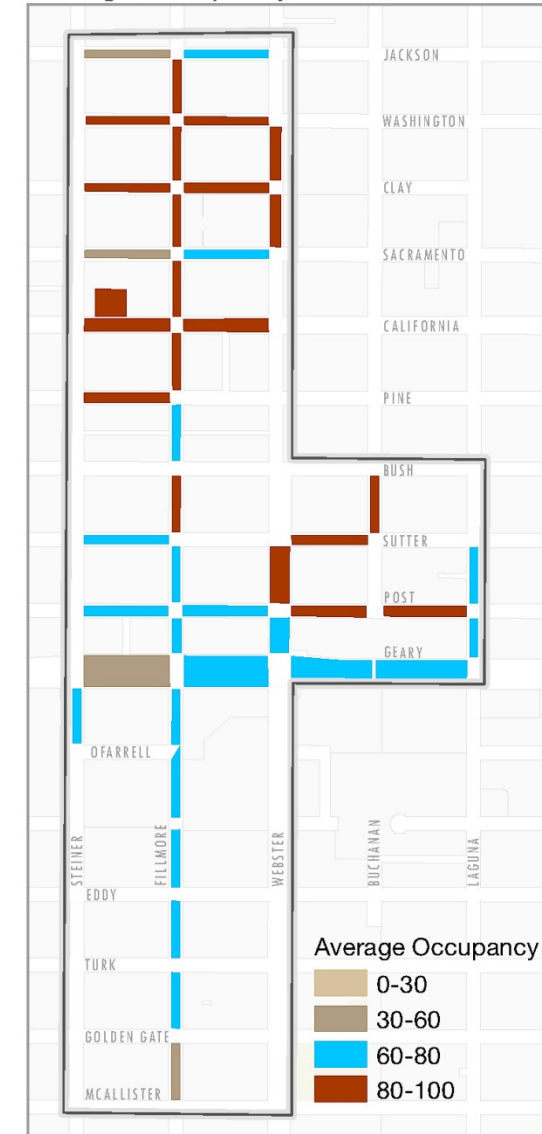


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Before SFpark

Hourly Rates

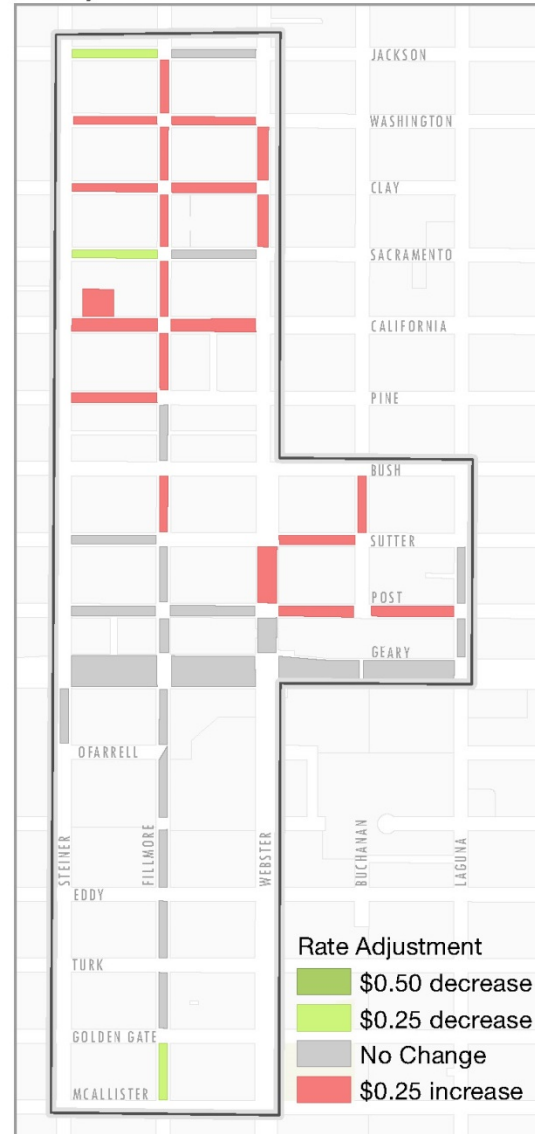


Average Occupancy

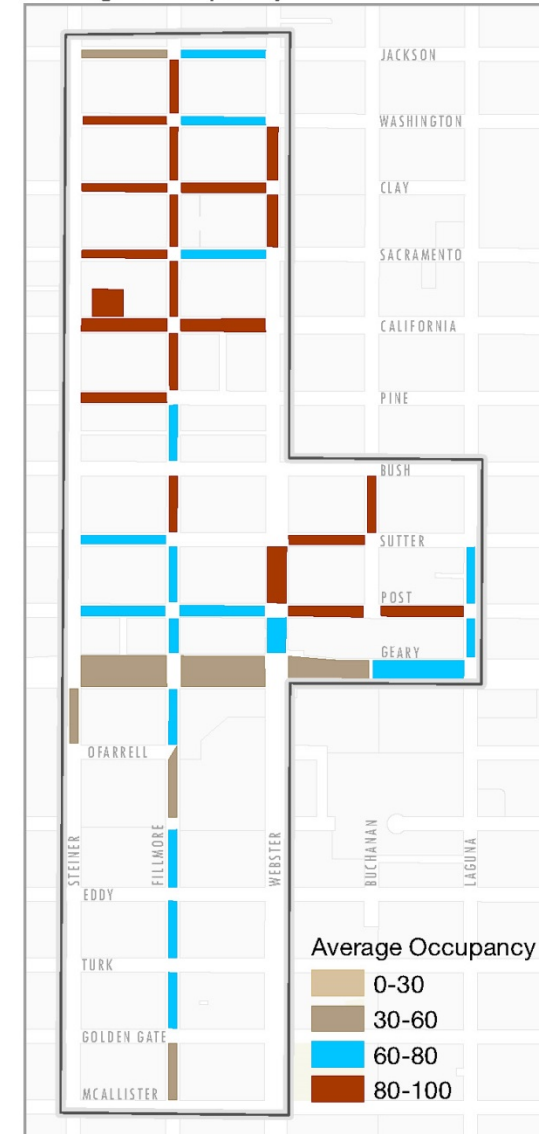


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 1

Hourly Rates



Average Occupancy

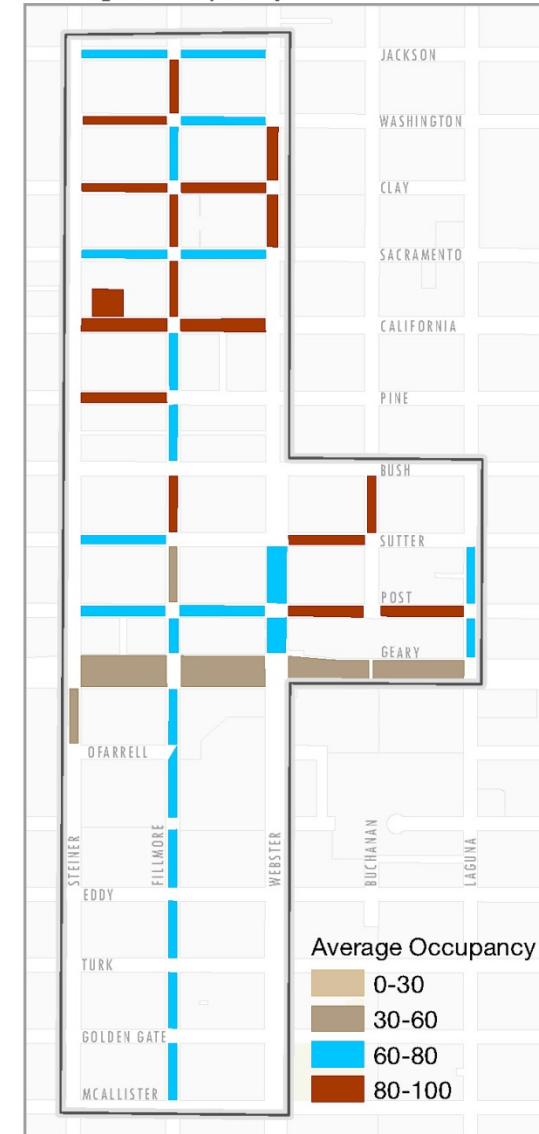


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 2

Hourly Rates



Average Occupancy

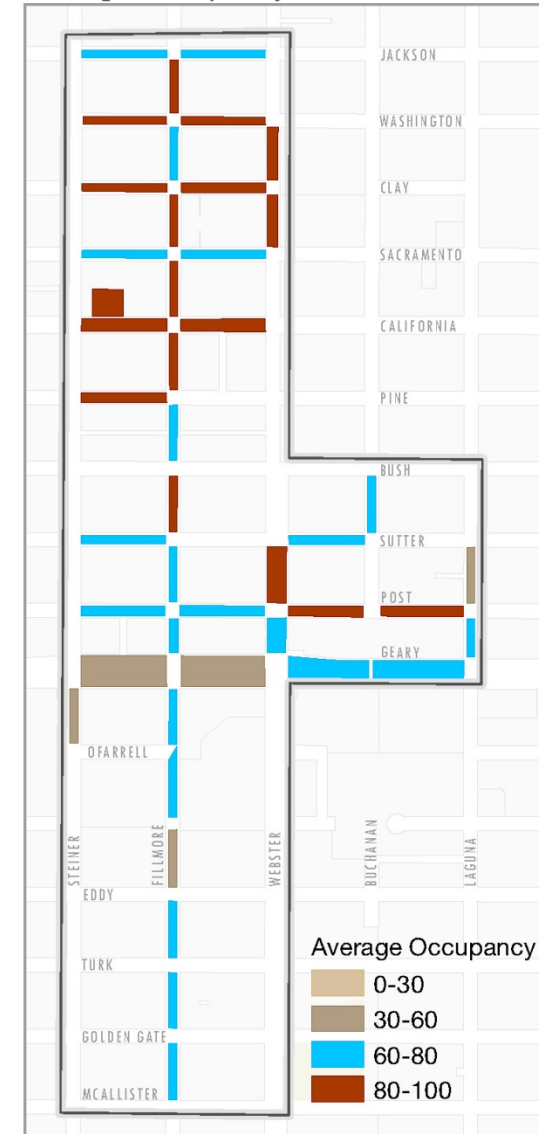


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 3

Hourly Rates



Average Occupancy

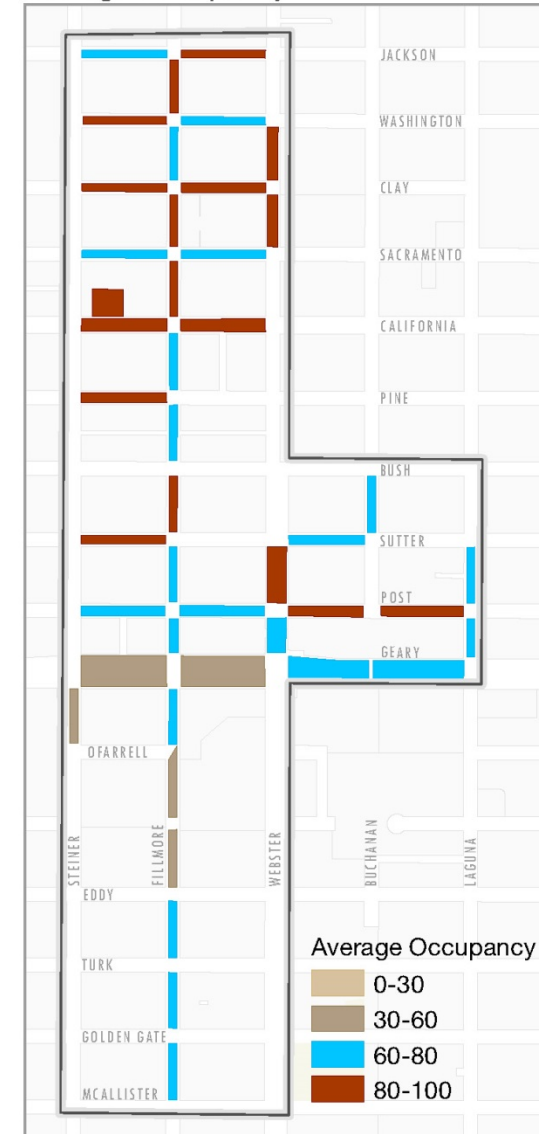


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 4

Hourly Rates



Average Occupancy

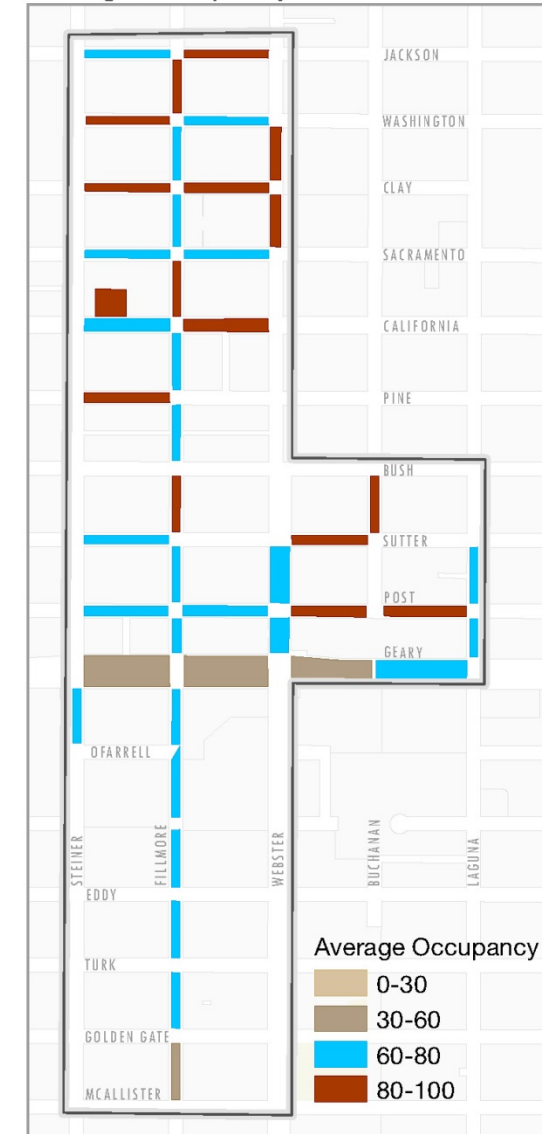


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 5

Hourly Rates



Average Occupancy

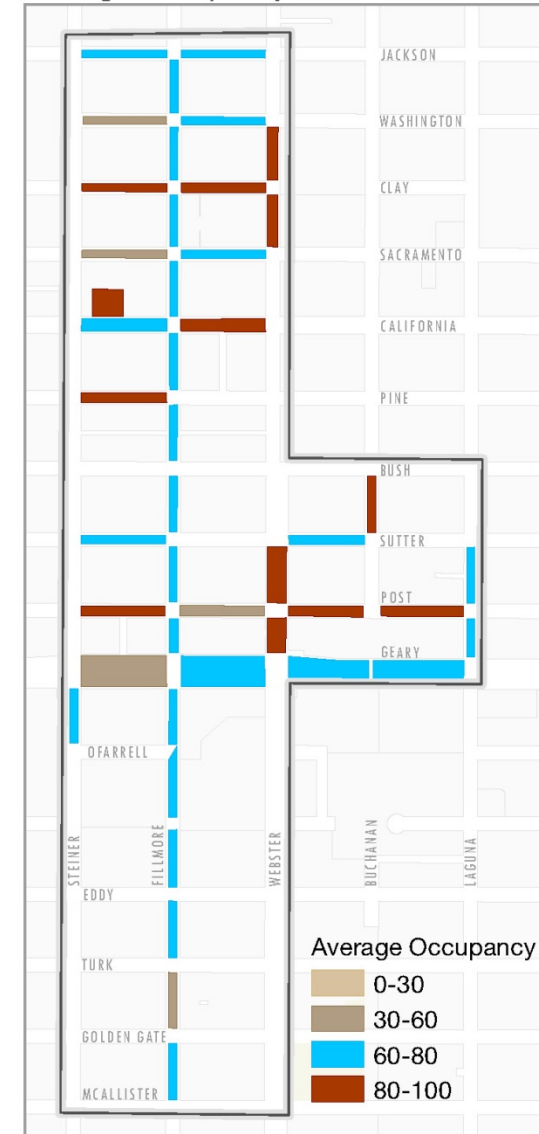


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 6

Hourly Rates



Average Occupancy

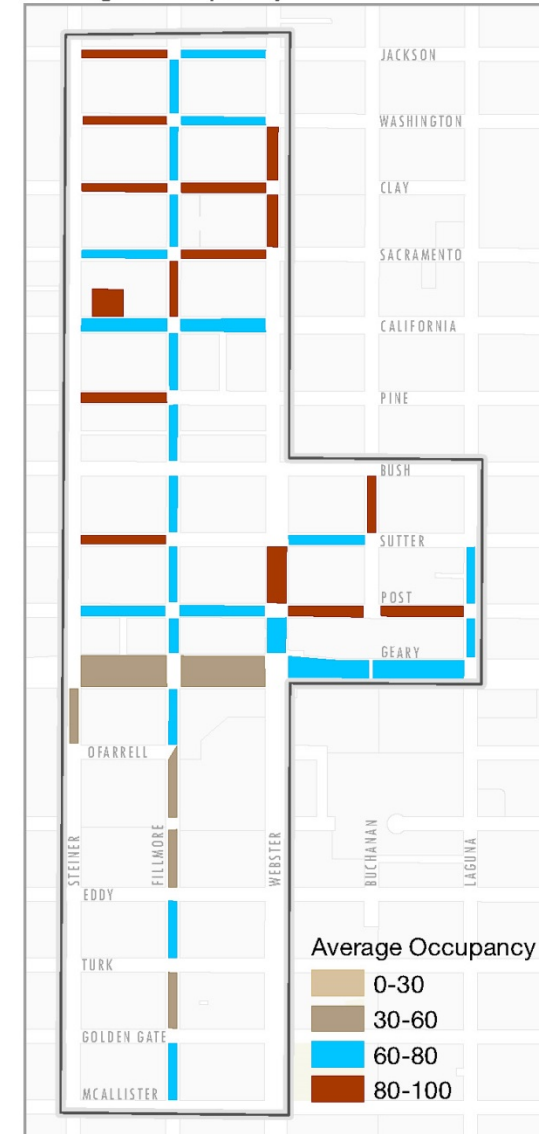


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 7

Hourly Rates



Average Occupancy

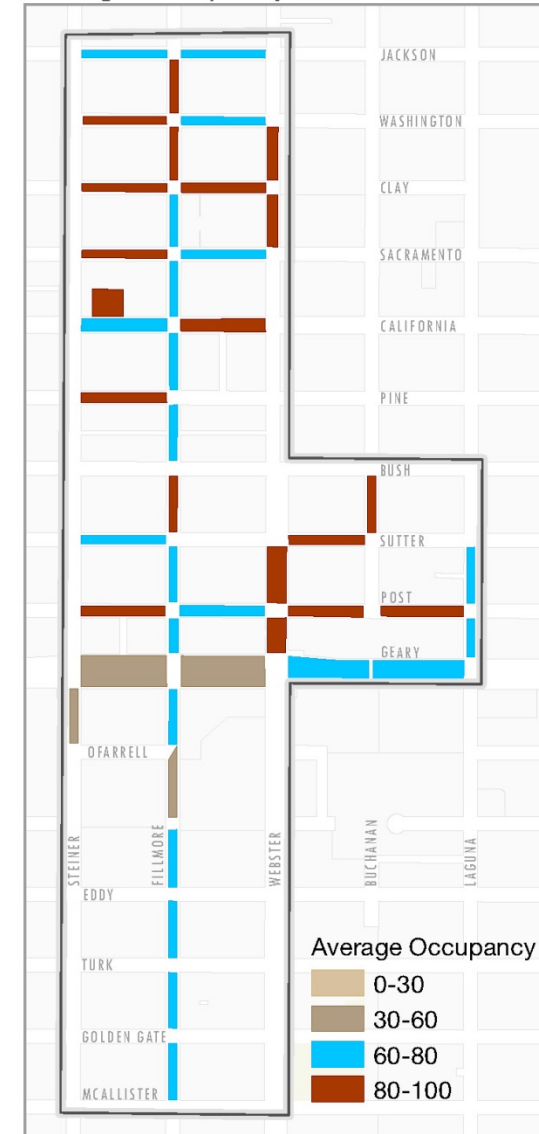


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 8

Hourly Rates



Average Occupancy

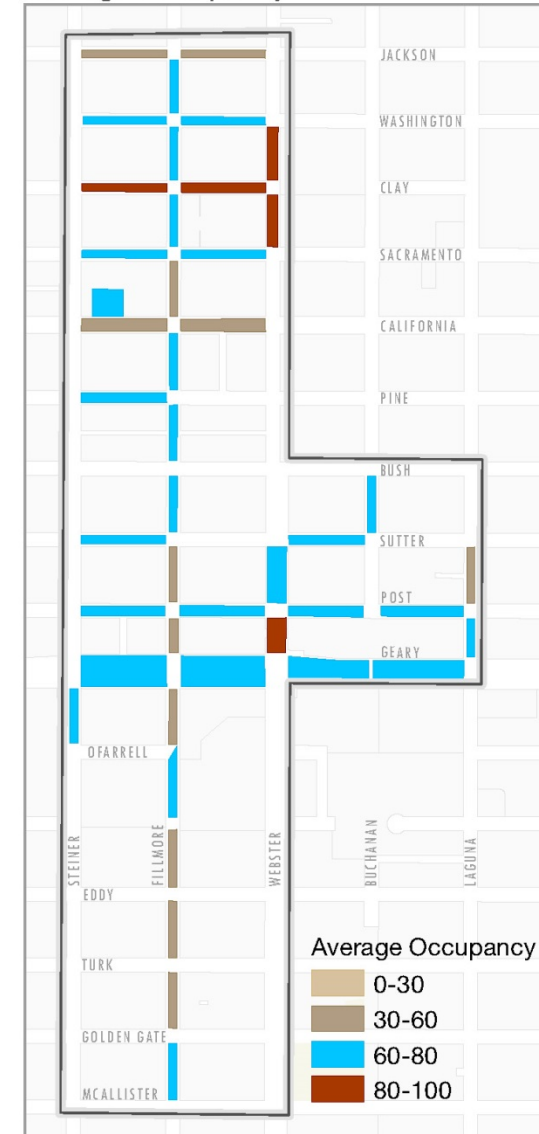


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 9

Hourly Rates



Average Occupancy

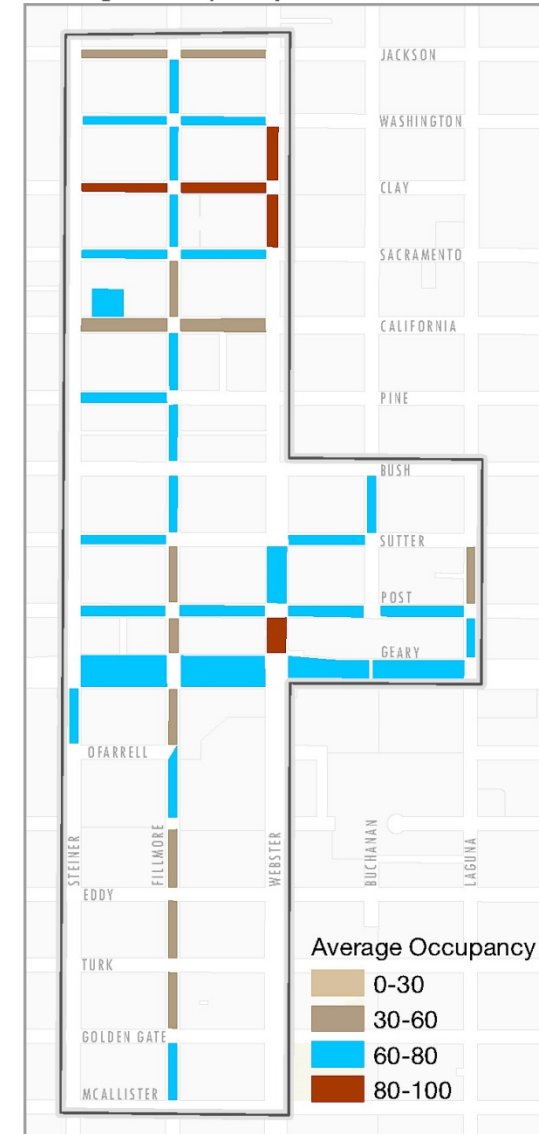


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
Rate Adjustment 10

Hourly Rates

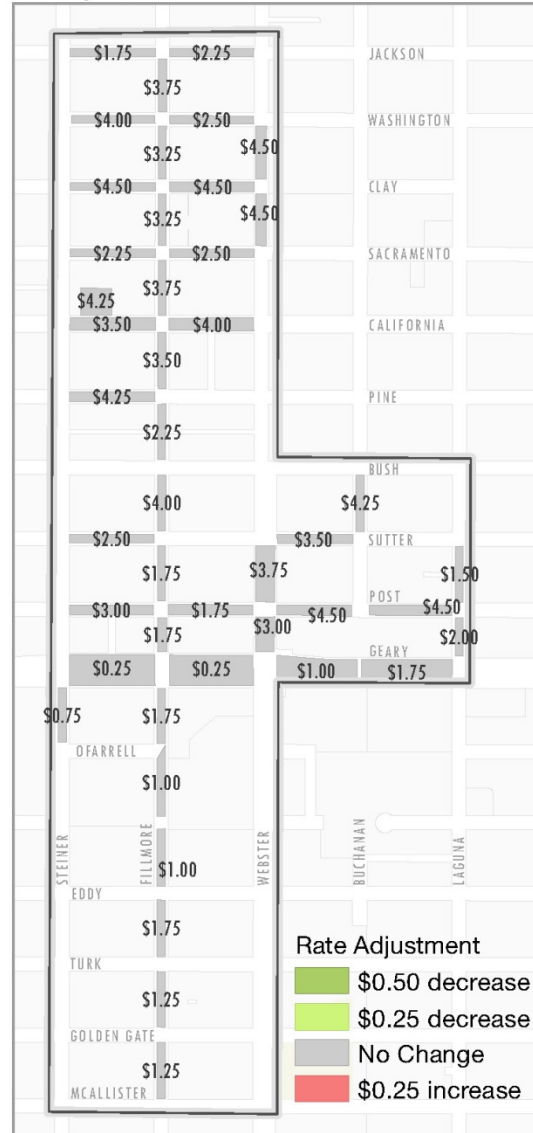


Average Occupancy

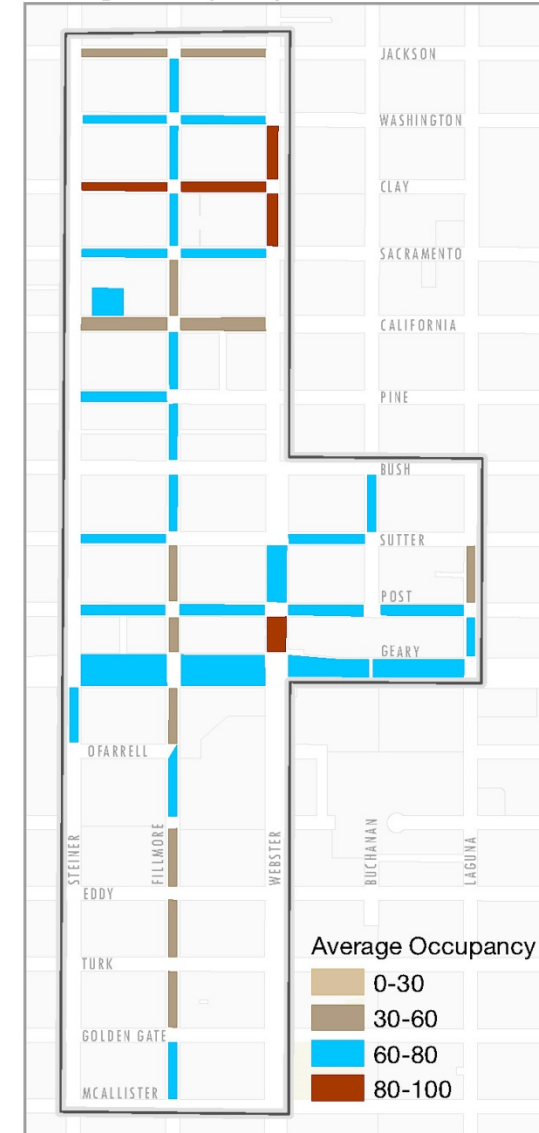


**Fillmore Pilot Area:
Pricing & Occupancy**
Weekdays 12pm to 3pm
After SFpark

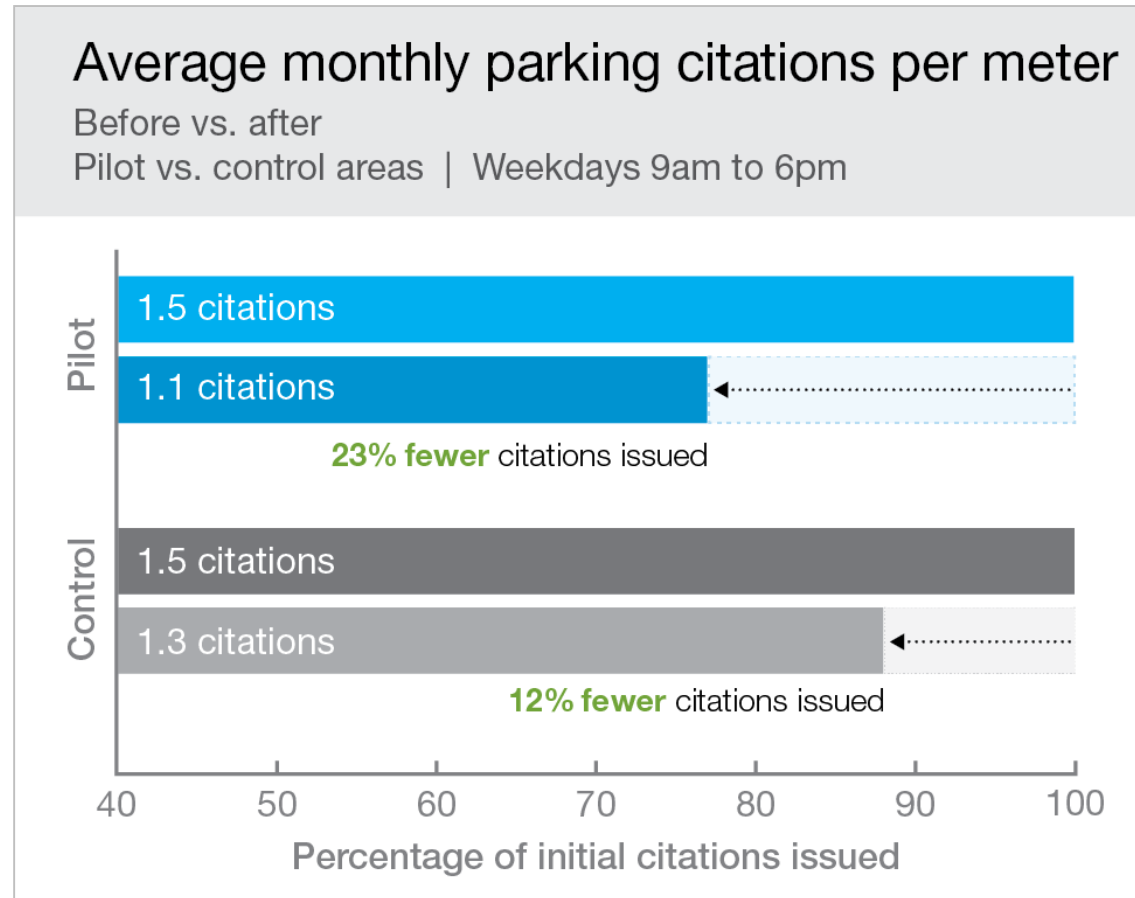
Hourly Rates



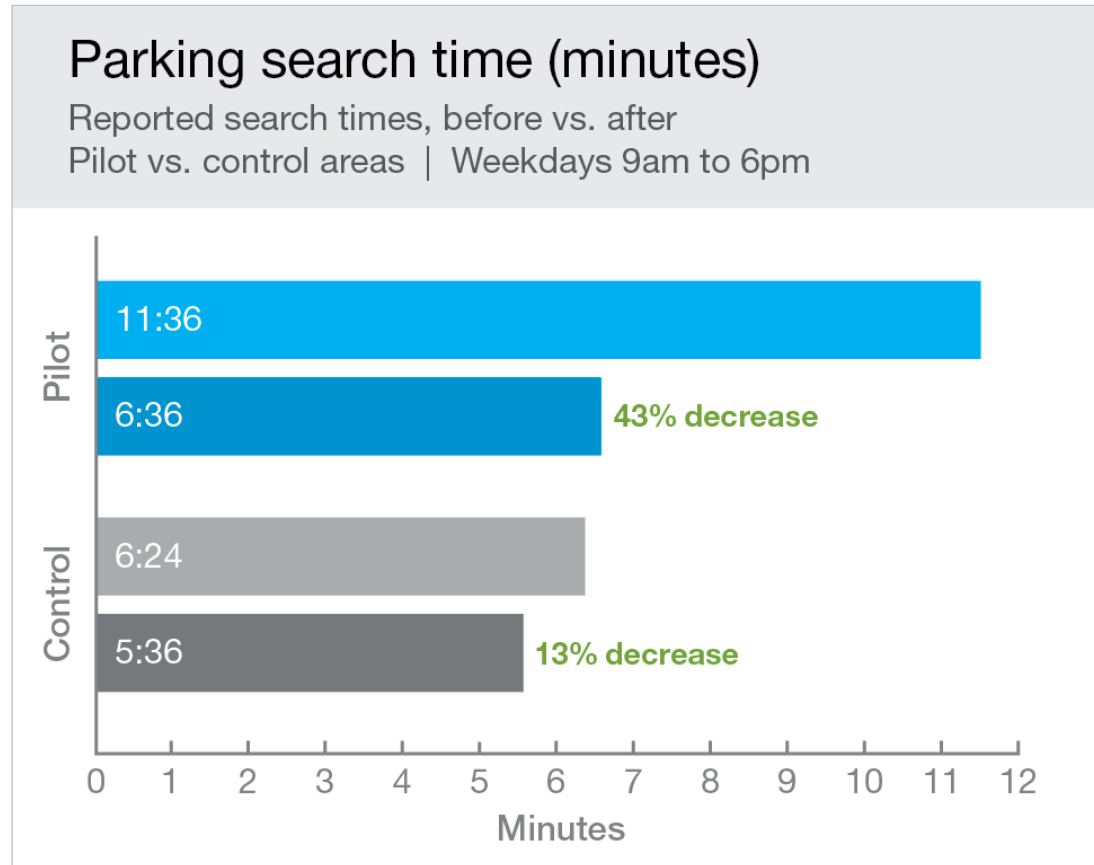
Average Occupancy



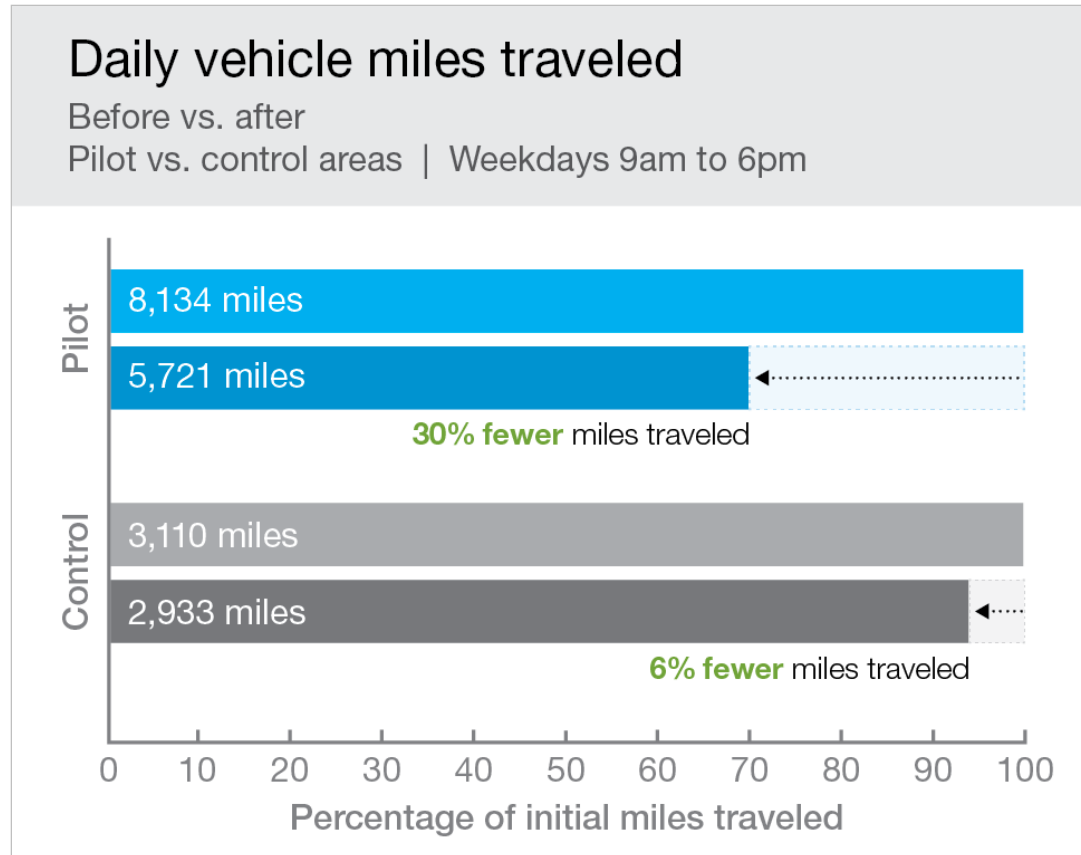
Easier to pay and avoid citations



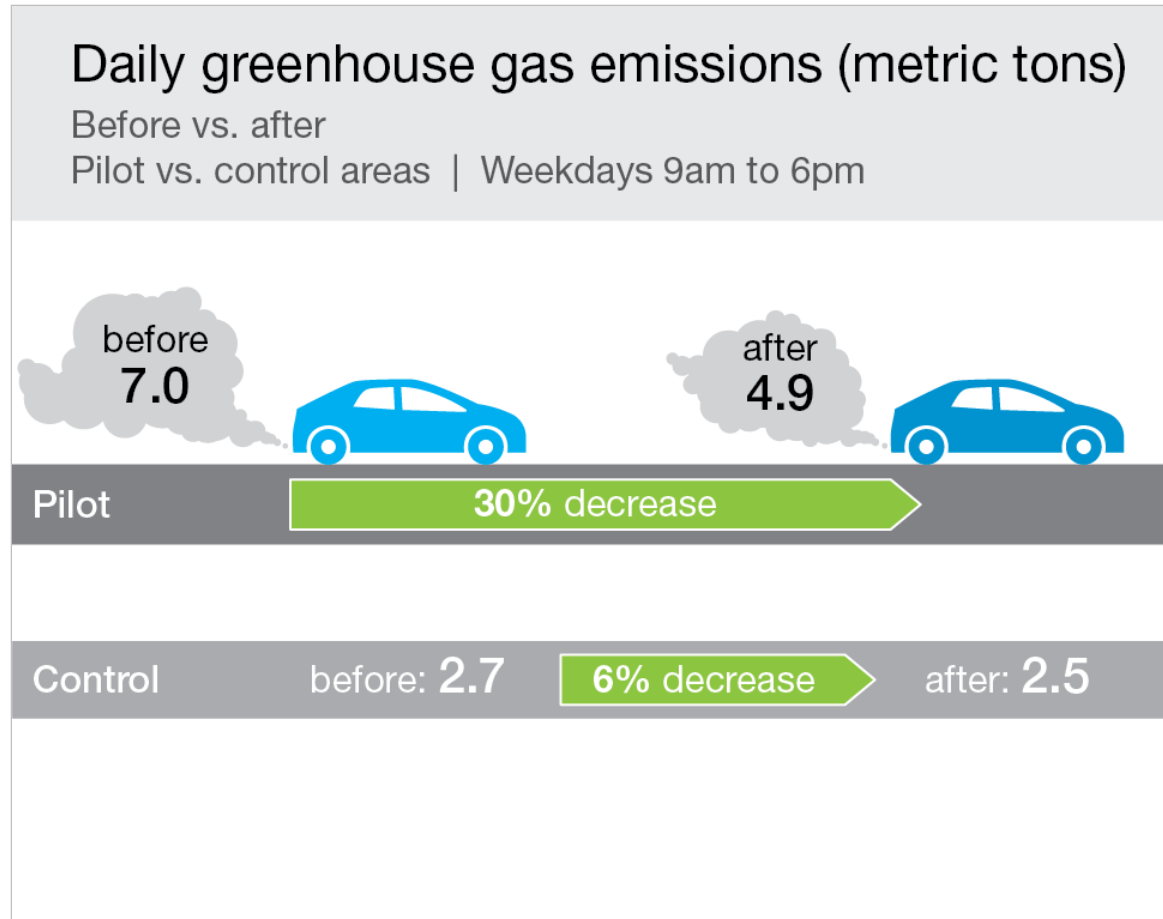
Easier to find a parking space



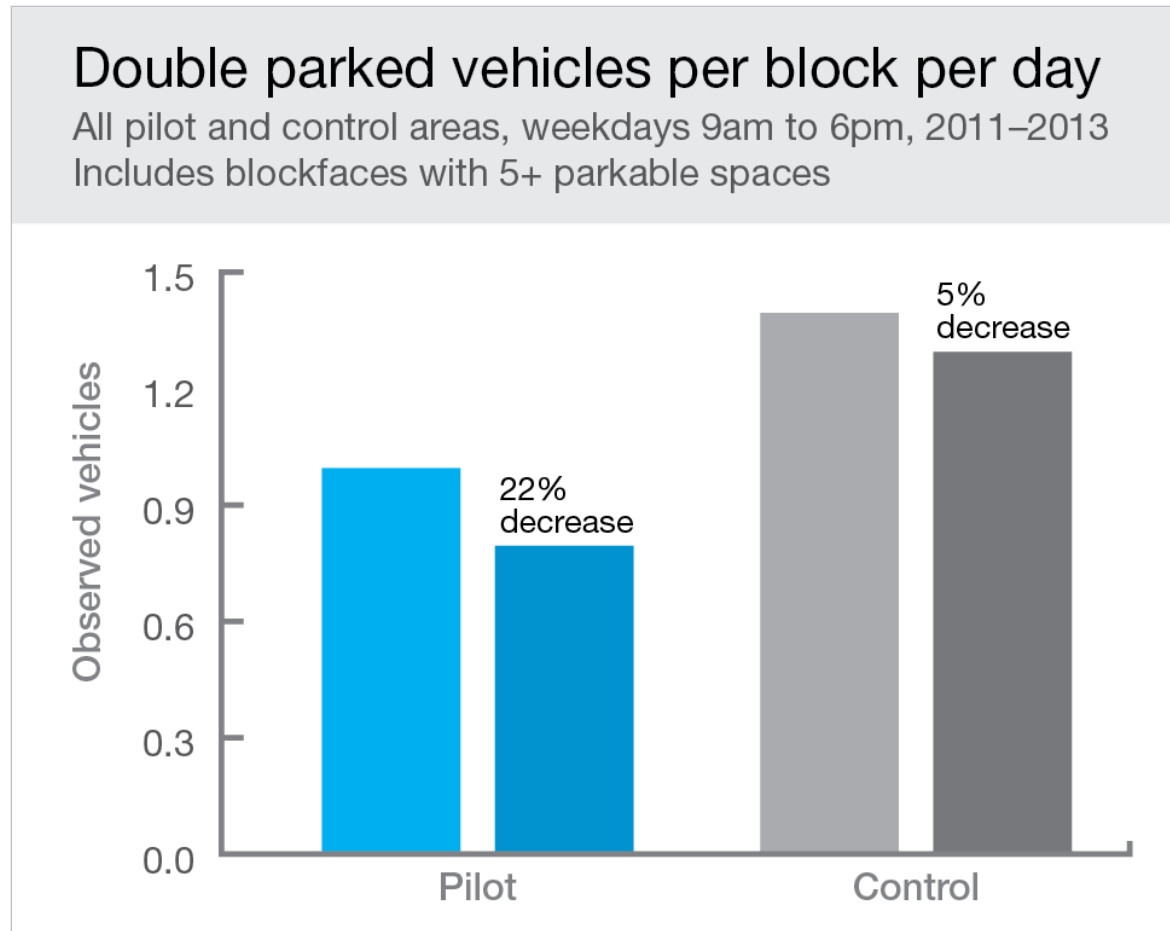
Decreased vehicle miles traveled



Decreased greenhouse gas emissions



Decreased double parking



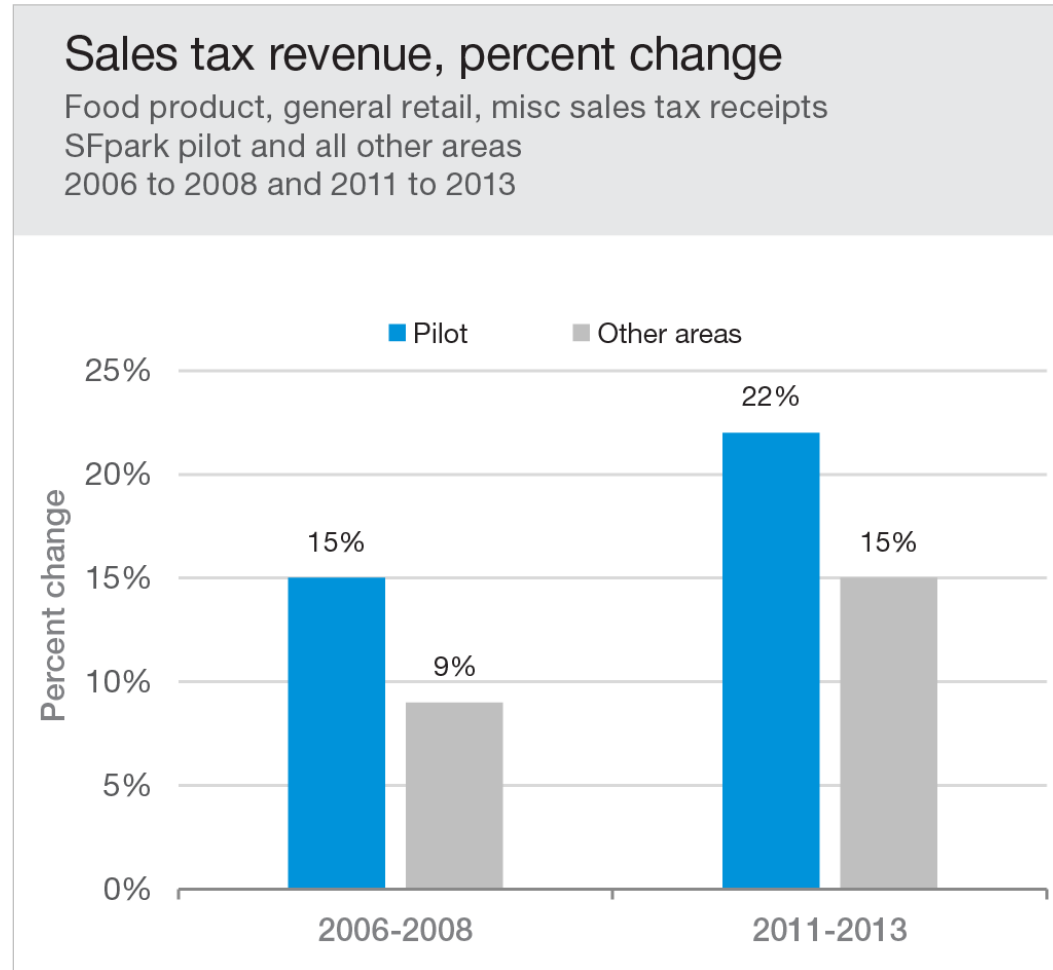
Improved Muni speed

Transit speed and double parking

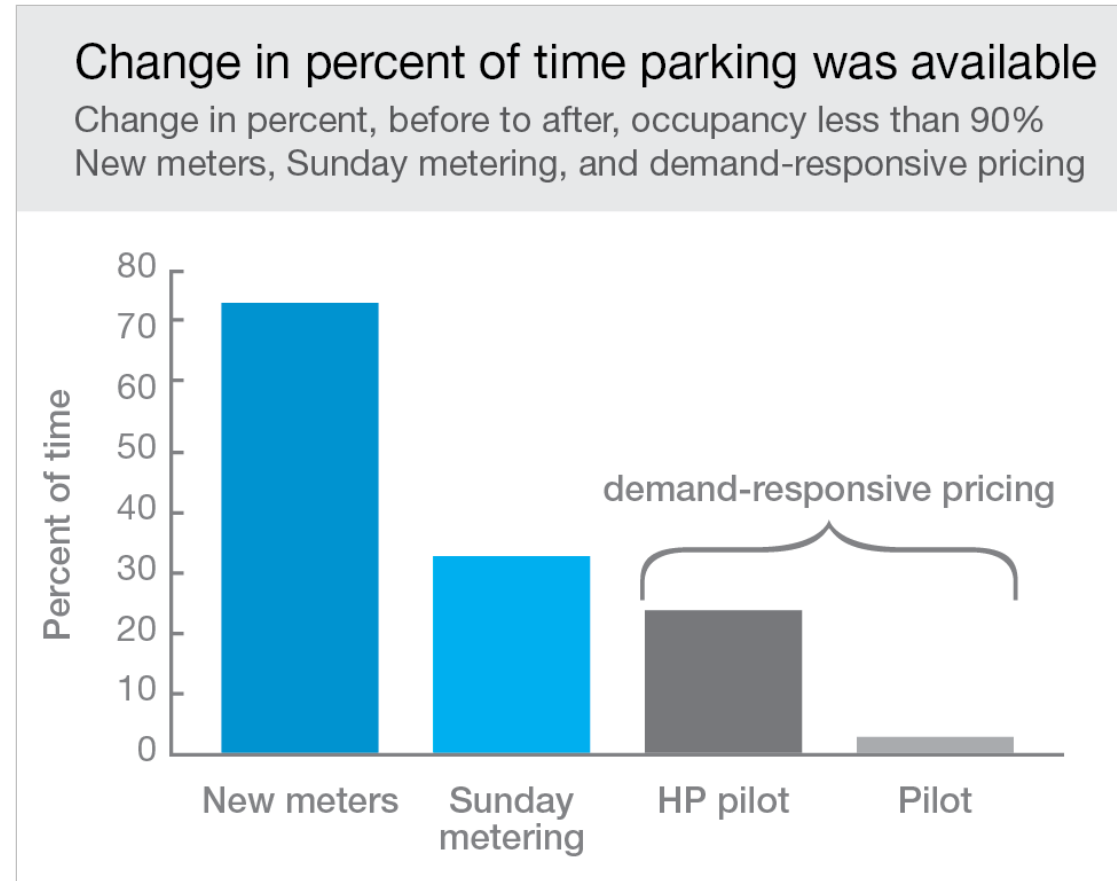
Transit speed on corridors with increased vs. decreased double parking (DP)
Weekdays, 9am to 6pm
Before vs. After

	Before	After	Net change	% change
Corridors w/decrease in DP	6.4	6.6	0.2	2.3%
Corridors w/increase in DP	7.1	6.7	(0.4)	-5.4%

Supported economic vitality and safety



Additional findings



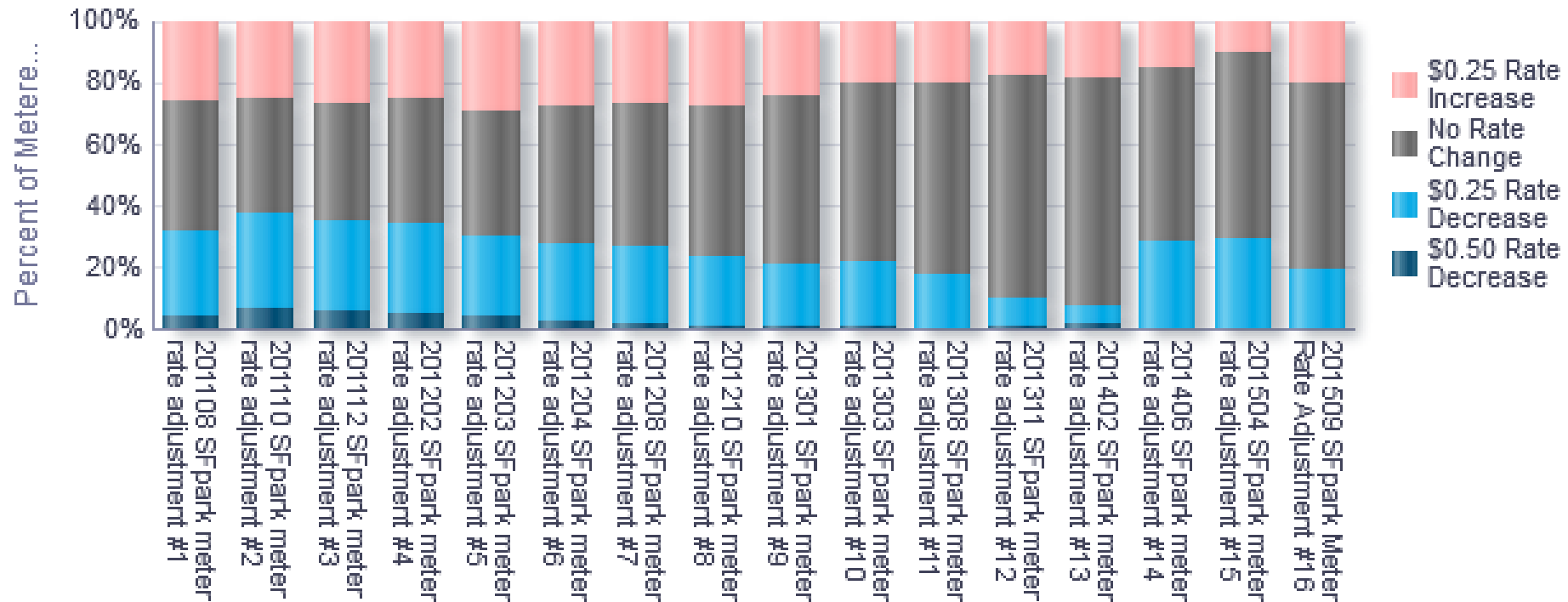
Part 6: What's next & lessons learned



What's next

- Continue rate changes in SFpark pilot areas
- Develop proposal for expanding SFpark
- Test new occupancy data sources to calibrate SIRA

Rate Change Distribution by Metered Hours



Lessons learned

- What worked well
 - Large investment in communication and customer experience
 - Transparent, rules-based, and data-driven process
 - Clear goals and policies
- What was challenging
 - Very IT intensive
 - Parking sensors are a nascent product/industry
 - Culture change takes time
 - Recognizing parking management as tool
 - Emphasizing availability rather than turnover
 - Payment compliance & legal context for disabled placard parking use

Lessons learned



1 You can change the perception that no parking is available



2 Adopt policies and technology gradually – but have clear end goal. **Lead with policy and goals.**



3 Pair user improvements with policy improvements

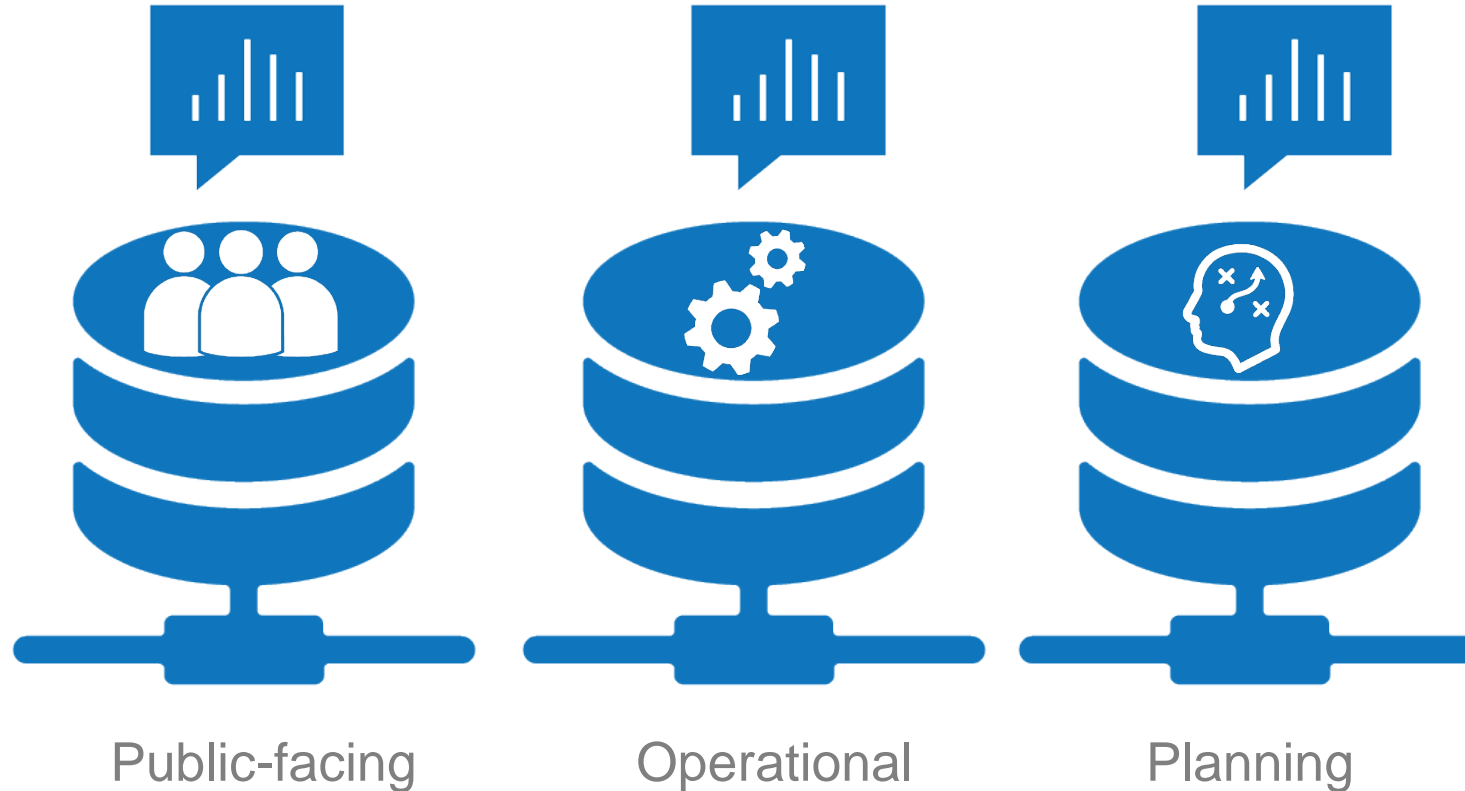


4 Have a multimodal project? Develop a parking plan.

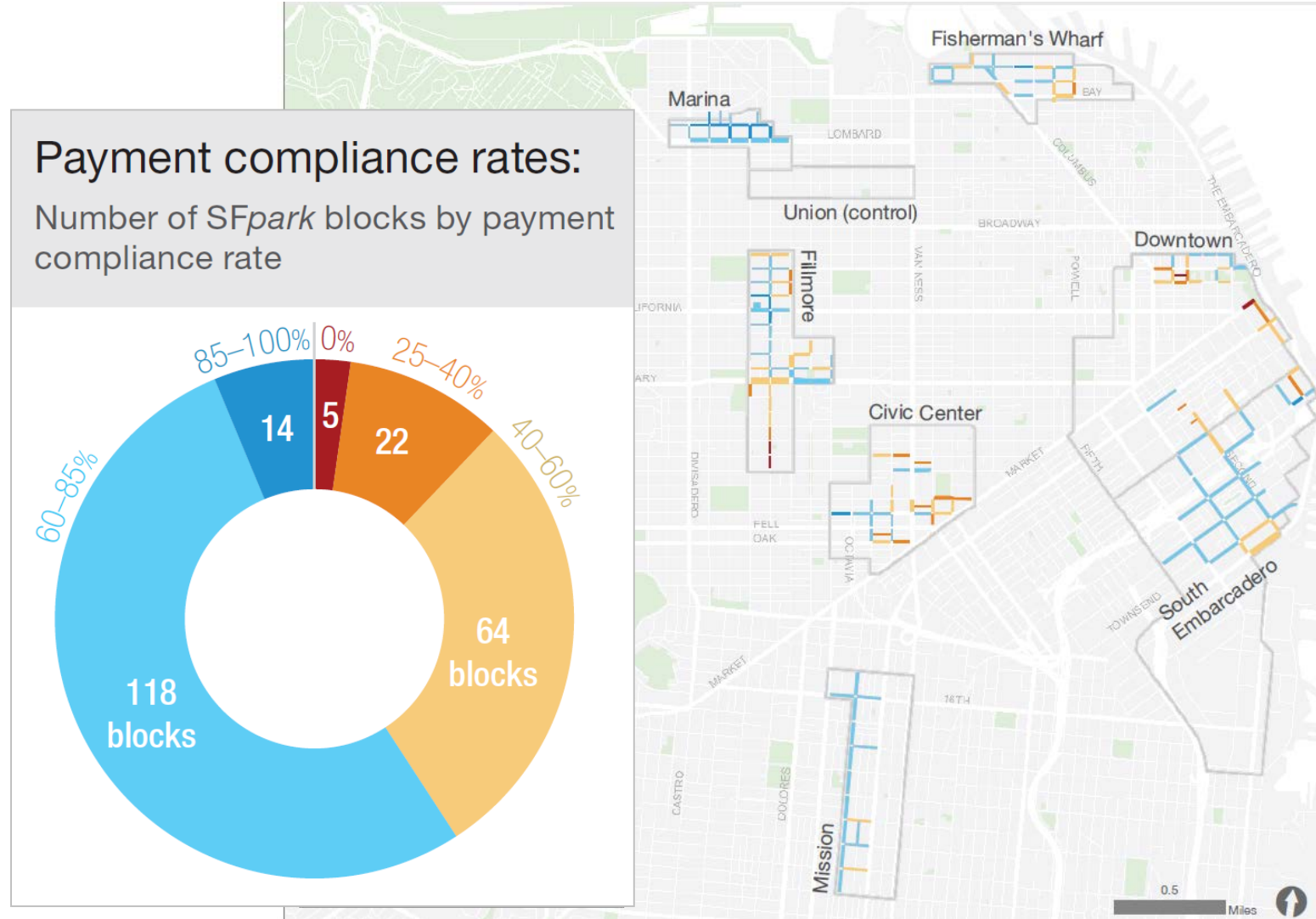


5 Consistency in goals and messaging to help build trust in parking management.

Lessons learned: Types of data control



Challenges: low payment compliance

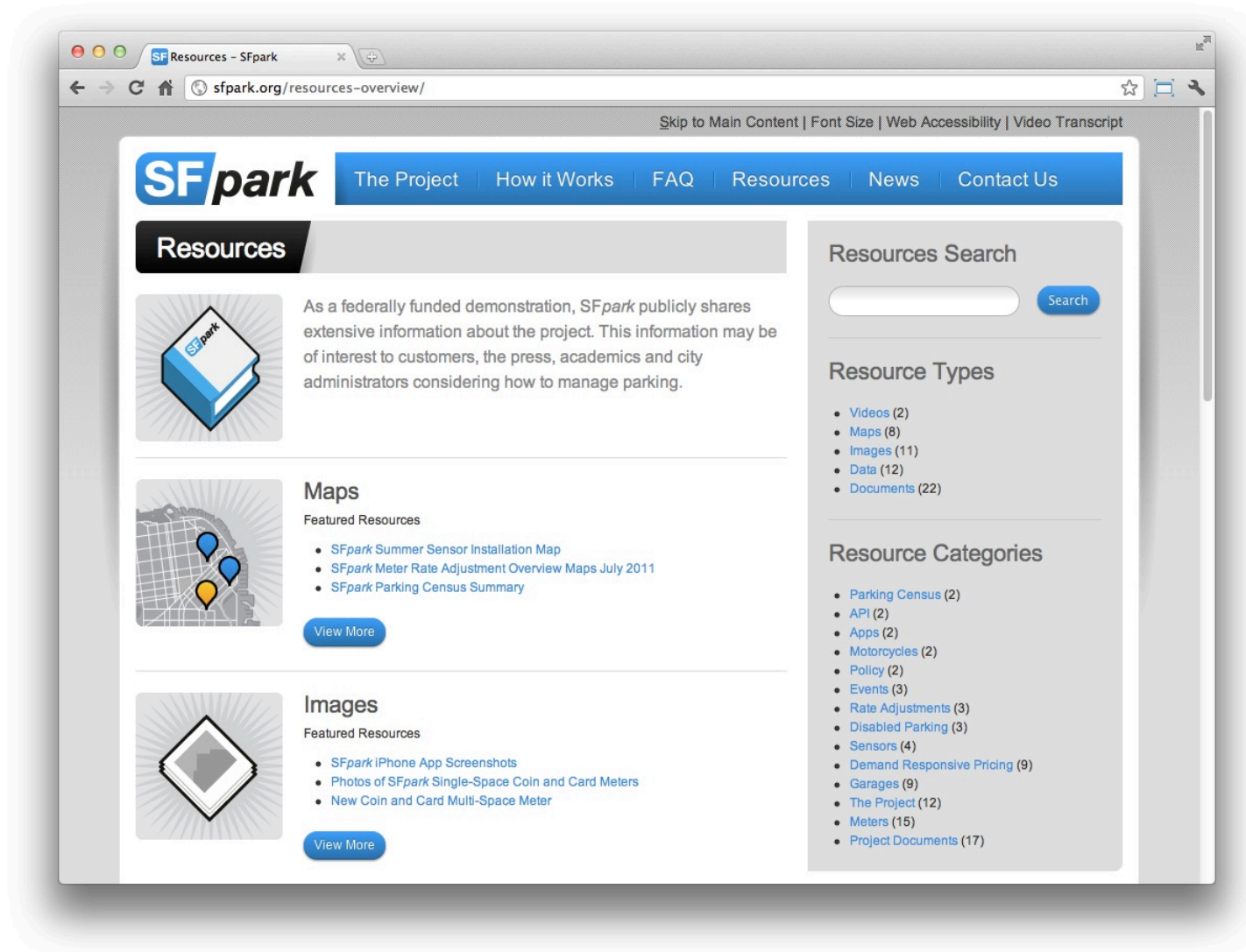


Bigger advice

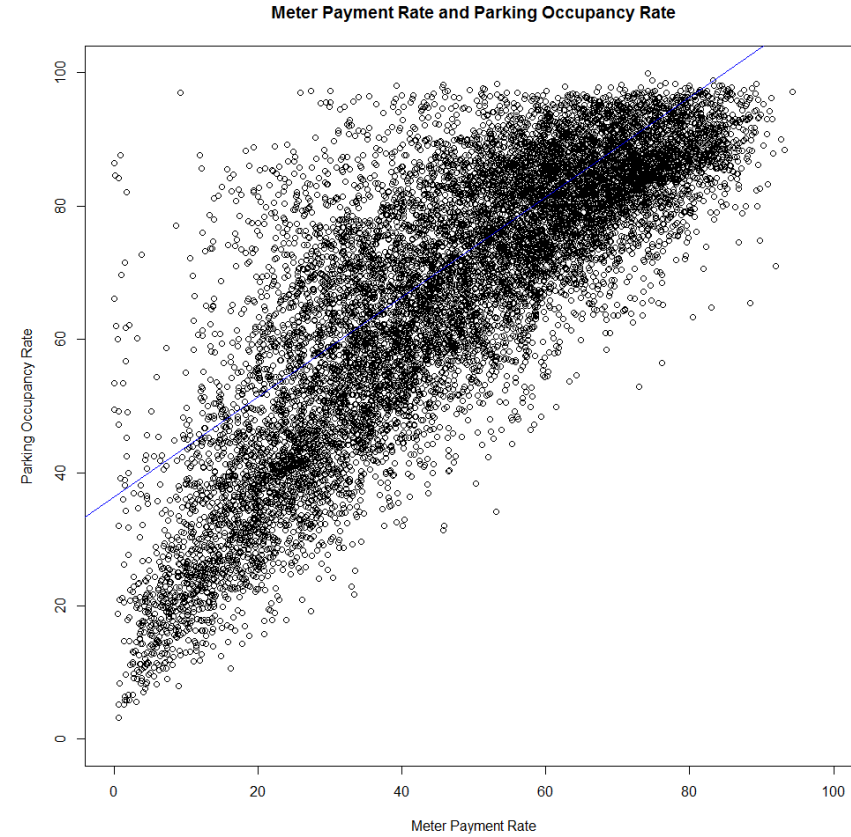
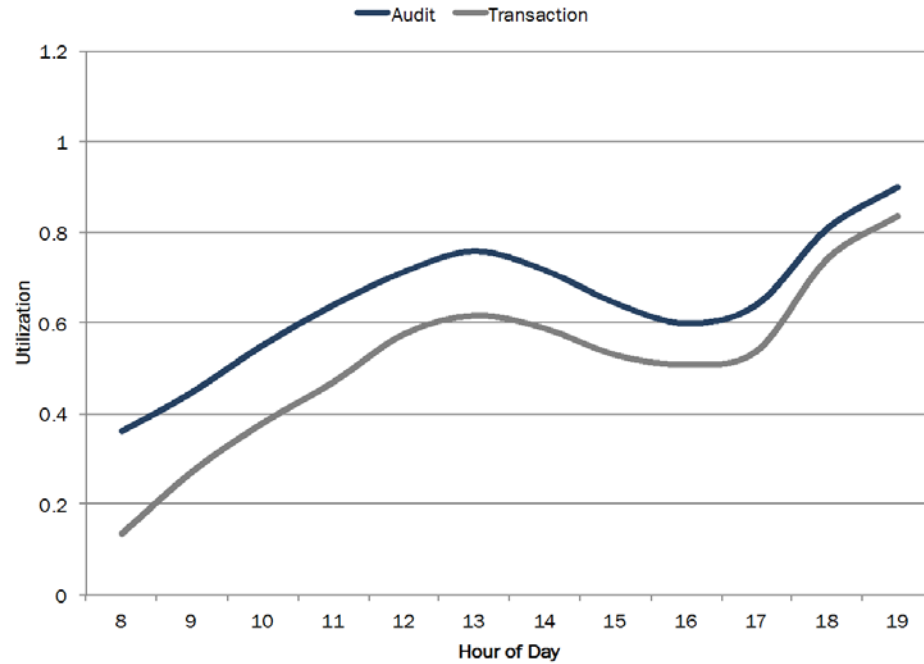
To really have smart cities....

- Cities need a clearer vision
- Cities need to invest far more into IT
- Cities invest far less in IT than other types of private big corporations, and that shows.
- Good companies know that IT investments are necessary to remain competitive and to improve their bottom line.
- Cities can do the same thing to improve the amount and quality of the services they provide with the same amount of resources.

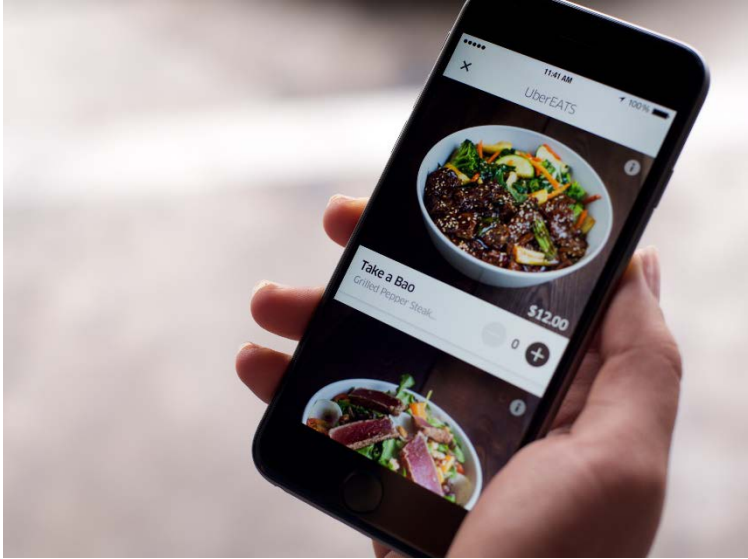
SFpark.org/resources



Future opportunities



Looking forward



Thank you

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SFpark.org