# Managing Curb Parking

**A key to increasing housing affordability, ending homelessness, and reducing congestion and pollution**


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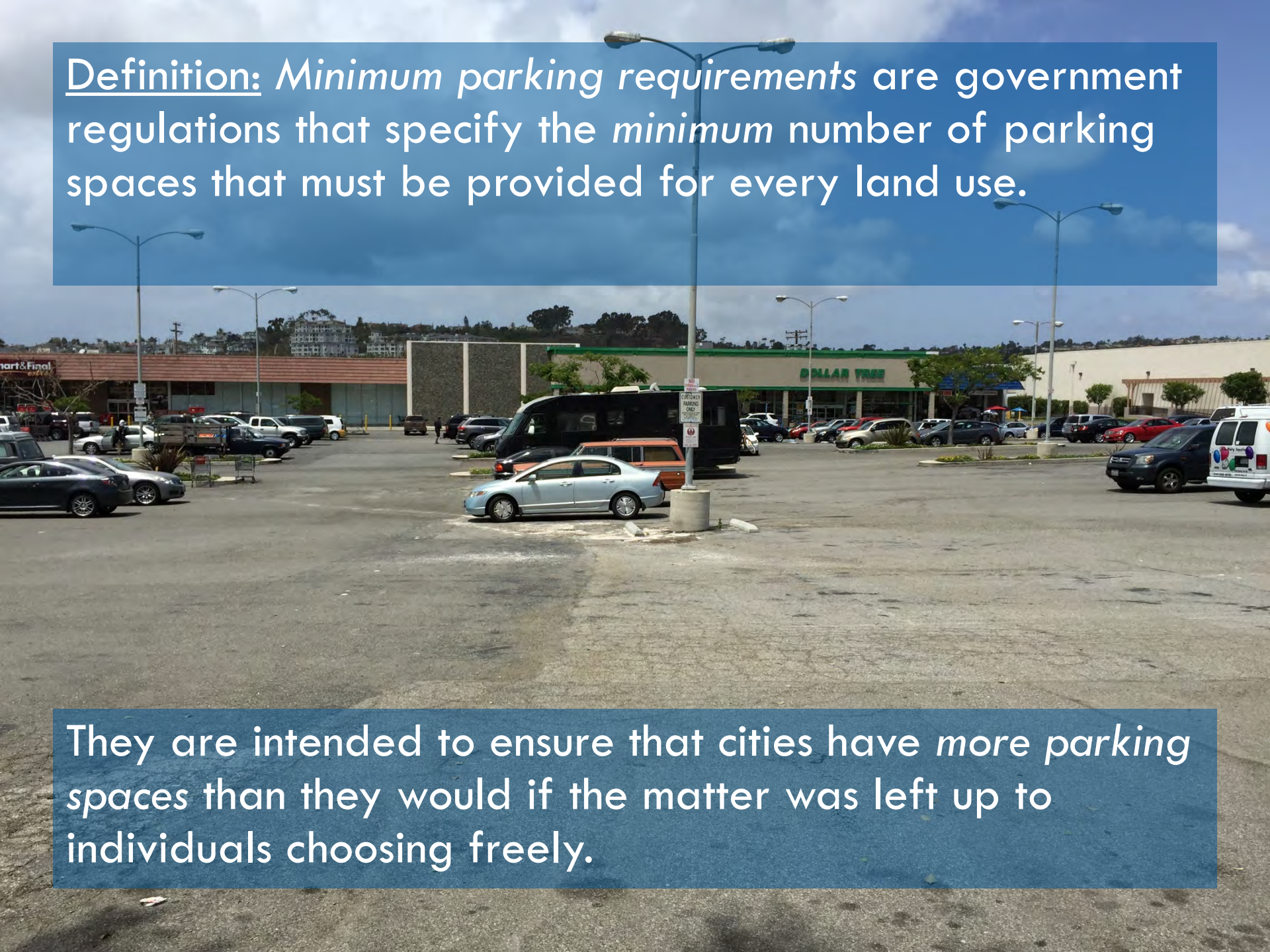
**Presented by Patrick Siegman**

**October 2016**




<u>Definition:</u> *Minimum parking requirements* are government regulations that specify the *minimum* number of parking spaces that must be provided for every land use.

They are intended to ensure that cities have *more parking spaces* than they would if the matter was left up to individuals choosing freely.

# Palo Alto, CA – parking requirements adopted in 1951


## What is the *purpose* of minimum parking requirements?

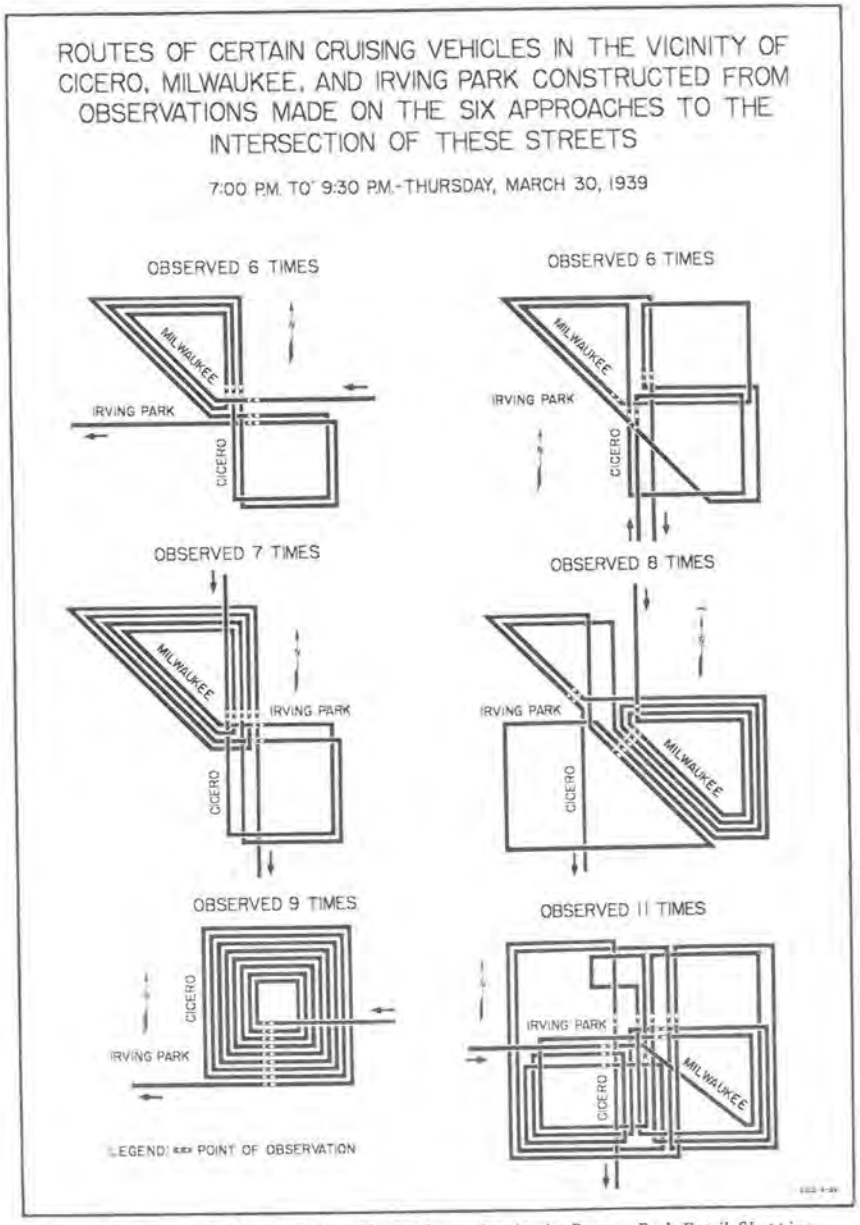
*According to the zoning codes:*

- *Palo Alto: "to alleviate traffic congestion"*
- *San Diego: "to reduce traffic congestion and improve air quality"*

- Generally, *to prevent spill-over parking problems*

# Cruising for parking, 1939

The pattern of "cruising for parking" was observed in Chicago by recording the license plate numbers of vehicles that repeatedly passed through a busy intersection during the morning rush hour.




*From the Report: "A Plan to Relieve Traffic Congestion in the Portage Park Retail Shopping Center." A Survey by City of Chicago, Chicago Motor Club, Chicago Surface Lines, April 1939*

FIGURE 4—Observed Routes of Cruising Vehicles

# An economically illiterate theory for addressing traffic congestion


1. Set minimum parking regulations to ensure that virtually all destinations have excess spaces, even when parking is given away free, even at isolated locations with no transit.

2. Prohibit or discourage charging for parking.

3. Prohibit curb parking.

4. Convert curb parking into more traffic lanes.

Result: no more cruising for parking, more auto capacity…but there were unintended consequences

# Minimum Parking Requirements - Source

**Example: Office Parks**

*ITE Parking Generation* Report

Peak Occupancy Rates, in spaces per 1000 sf of building area:

| | |
|---|---|
| Lowest: | 0.94 spaces |
| Average: | 2.52 spaces |
| Highest: | 4.25 spaces |

**Typical requirement:**

**4.0 spaces/1000 sf**

Typical office: 4 parking spaces per 1000 sq.ft.

1.3 sq. ft.  of asphalt per sq. ft. of building area

# Typical Minimum Parking Requirements

(Milpitas & San Jose, CA)


There's a light rail station just beyond the left edge of this photo.
…It's one of the worst-performing light rail systems in North America.
…And the nearby freeway is one of the most congested.
Office: 4 spaces / 1000 square feet of built space
Hotel: 1 space / room
Retail: 4 spaces / 1000 square feet of built space

## Unintended Consequences of Minimum Parking Regulations

Minimum parking regulations require excess spaces even when parking is free, even at isolated locations with no transit

↓

Cost of parking is hidden in the price of other goods & services

| Higher rents | Pricier goods | Higher Taxes |
|---|---|---|

↓

Parking appears free, resulting in higher parking demand, more driving, more congestion, more pollution

↓

We all pay for more parking and bigger roads

# Unintended consequences: less housing, more expensive housing & lower land values

1961: Oakland's first parking requirement

- One space per unit for apartments
- Construction cost increases 18% per unit
- Units per acre decreases by 30%
- Land value falls 33%

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# MANAGING CURB PARKING & REMOVING MINIMUM PARKING REQUIREMENTS

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# Three Parking Management Reforms

1. Charge the right prices for curb parking
2. Return the parking revenue to the blocks where it is generated, to pay for public services
3. Remove minimum parking requirements

# Downtown Ventura
# Mobility & Parking Plan

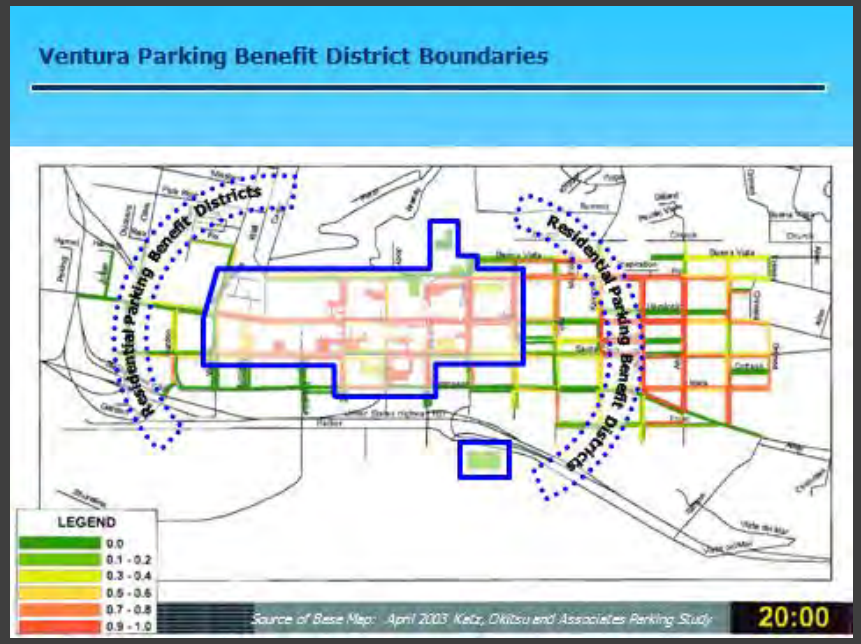
# Ventura's Parking Benefit District

Devotes parking revenue to district where funds raised

- Meters installed on premium spaces only (318 of 2500 total)
- Policy: set rates at *lowest* rate needed to achieve 1-2 available spaces on every block
- *No time limits*

**Results**

- Current rates: $.50 to $1/hour
- Current hours: 10am - 9pm, daily
- Revenue: $530,000 annually
- Funds new police officer & 9 police cadets, better lighting, free public Wi-Fi
- Crime down 40%

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# “Parking Management That Actually Manages Parking”

TUESDAY, SEPTEMBER 14, 2010

“At about 10:30 this morning, I step out of my office…Almost immediately, I notice something different…

The paid parking portion of our downtown parking management program had gone into effect at 10 a.m., and it was already showing results. People who park all day downtown have moved into the lots and the upper levels of the parking garage. Spaces on the street are now available for shoppers, diners, and others who were running short-term errands. In other words, only 30 minutes after we instituted the parking management program, it is working.”

-- Bill Fulton, Mayor of Ventura

*Source: http://fulton4ventura.blogspot.com/search?updated-max=2010-09-22T13%3A47%3A00-07%3A00&max-results=7*

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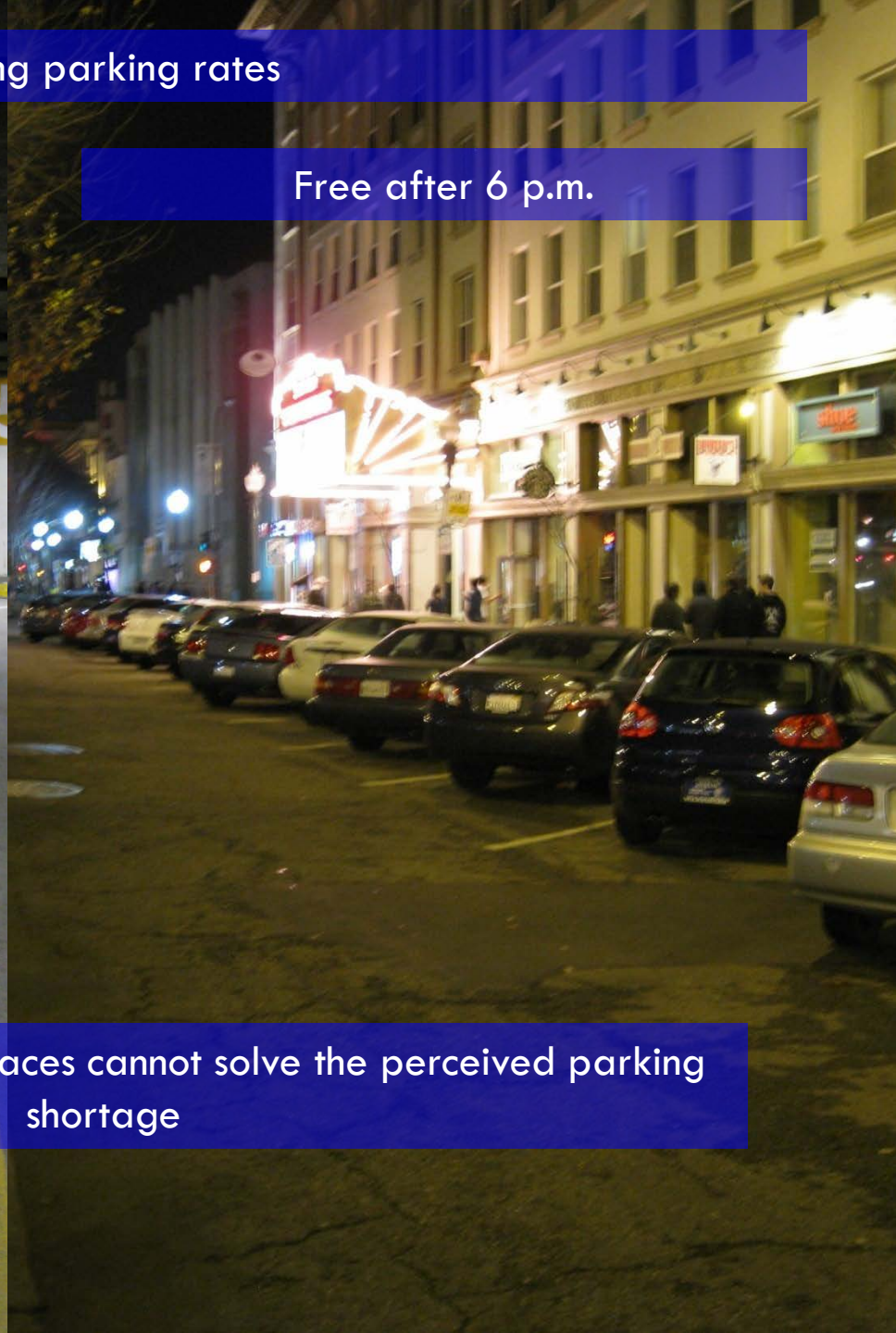
# Berkeley Downtown Parking & TDM Study

<u>First impressions:</u>
Saturday night in downtown Berkeley (January 30, 2010)


5
ARPEGGIO
STAIRS
5
ELEVATOR
5

# Saturday evening parking rates


$5 flat rate



Free after 6 p.m.

Conclusion: Building more spaces cannot solve the perceived parking shortage

# Berkeley - goBerkeley

Parking prices set at lowest rate to achieve 65-85% occupancy on each block

- Premium: up to $2.75/hr
- Value: up to $1.50/hr

- Revenues help fund public services for the blocks where the revenue is collected

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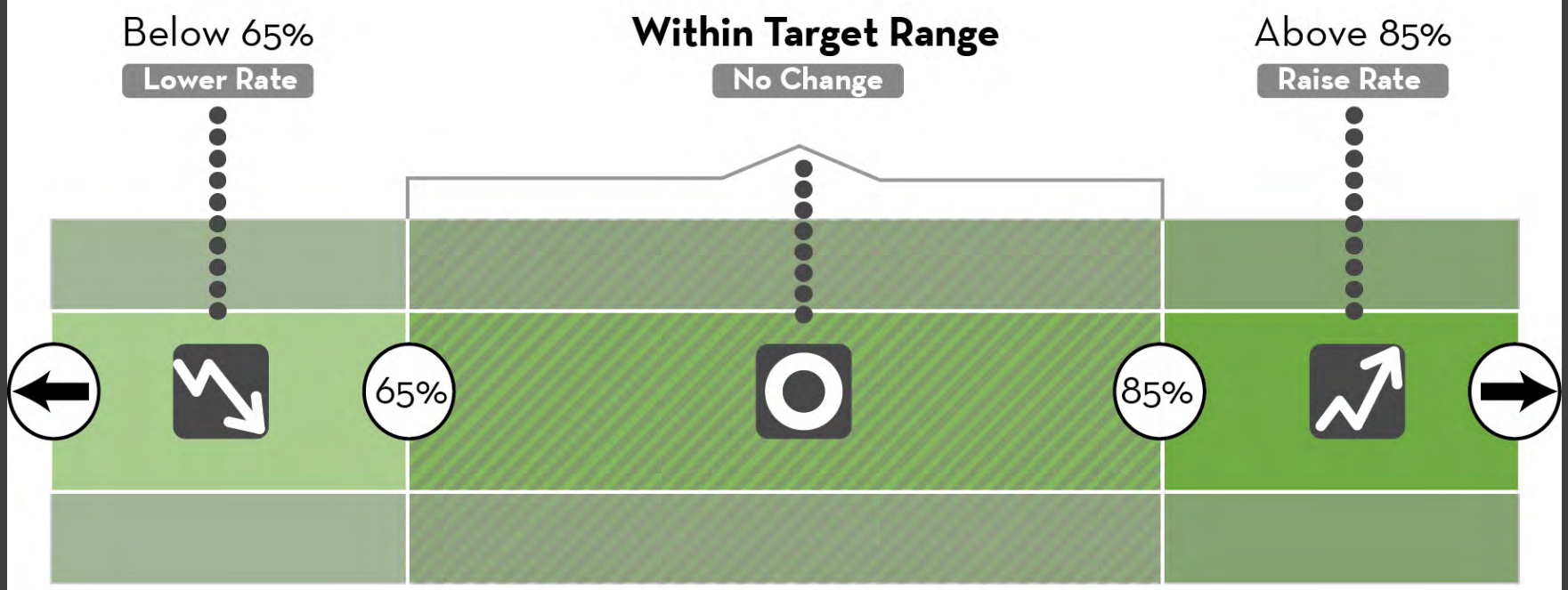
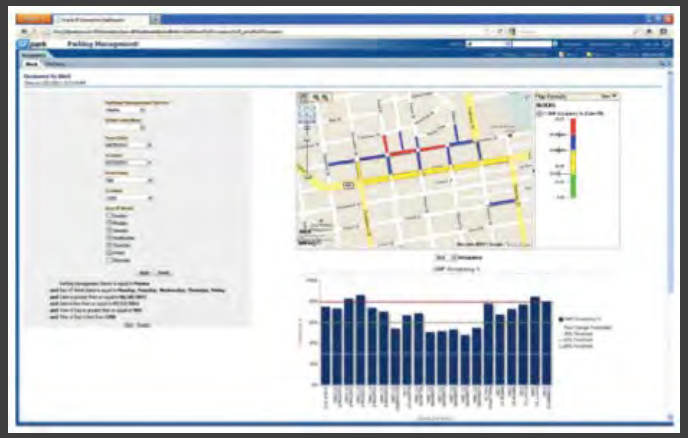
# Performance-Based Pricing at Work



# Automated Data Collection & Enforcement System

- Automated License Plate Recognition (LPR) system to gather occupancy data & conduct parking enforcement
- LPR installed on 5 enforcement vehicles
- Automatically generates parking occupancy maps
- Open-source software!

- Xerox: $500K contract to act as "system integrator“
- PCS Mobile: $450K contract to provide 5 Genetec LPR systems

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# Berkeley - goBerkeley

Results

- Majority of drivers surveyed say “finding parking is easy.”
- More drivers use previously underutilized off-street facilities
- Eliminated 693,000 vehicle miles of travel per year, largely due to a reduction in circling for underpriced curb parking




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# goBerkeley performance-based parking pricing program

"I think goBerkeley is one of the greatest ideas that we've had for many, many years...The anecdotal evidence that I hear ... is that there have been a few minor glitches, but the overwhelming sentiment is that this has been really successful."

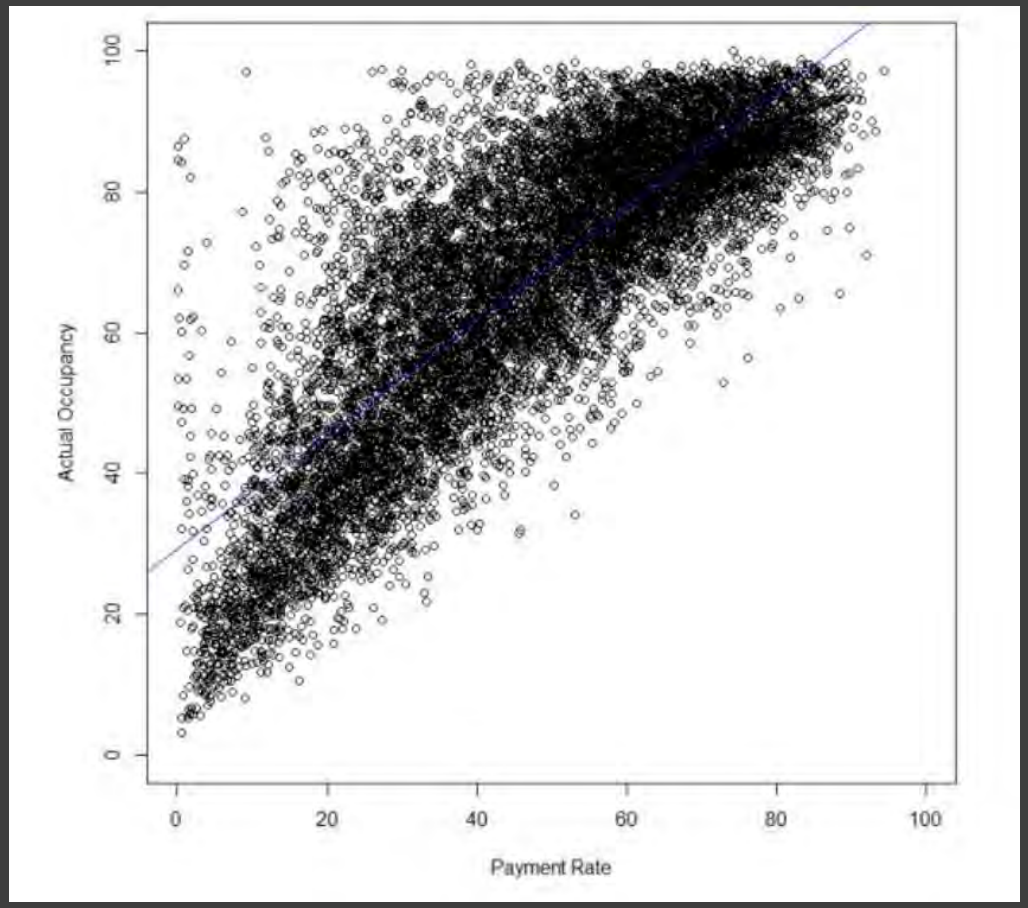
-- Councilmember Kriss Worthington

*Source: http://www.dailycal.org/2016/06/01/city-council-discusses-potential-changes-to-parking-policies-at-special-meeting/*

# San Francisco's *SFpark program*

# *Sfpark: occupancy* estimated from meter payments

- Use smart meter payment data to estimate occupancy
- Sensor Independent Rate Adjustment (SIRA) algorithm
- Verified by manual occupancy surveys (and previous sensor data)




SFpark meter rate adjustment data, Source: SFMTA 2014

$$Occupancy\ Rate = 29.283 + 0.808 * (Payment\ Rate)$$

# MANAGING CURB PARKING IN RESIDENTIAL AREAS

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# Managing curb parking – Errors to avoid

Boston's Beacon Hill neighborhood

- 3,933 resident permits issued - free
- 983 curb spaces available
- Lesson: *limit # of permits issued to less than the spaces available*


***Parking*** *on local streets is limited to 2 hours on weekdays, unless an "H" permit (for residents) is obtained.*

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# Residential Parking Benefit Districts

- Implement where warranted by demand
- Existing residents park free or cheaply
  - Limit permits issued to available curb space
- Non-Residents pay regular parking fees
  - Revenues fund neighborhood improvements
  - Payment options: pay by phone, pay stations, meters, or "scratcher" paper permits



Photo credits: Lady Demeter, Keith Kamisugi

# Residential Parking Benefit District Examples

- Laguna Beach, CA
  - Regular parking fees: $1.25-$2.25 per hour
  - Annual permit for residents: $40 per year
- Oceanside, CA
  - Regular parking fees: $1 per hour
  - Annual permit for residents: $100 per year
- Other Examples
  - Ventura, CA
  - Washington DC
  - Santa Cruz, CA
  - West Hollywood, CA
  - Austin, TX
  - Boulder, CO



Photo credits: Lady Demeter, Keith Kamisugi

# Managing curb parking allows removal of minimum parking requirements


Parking costs are “unbundled”
Parking fee: $150/month


The Freedom of
Driving WITHOUT
The Hassles of Ownership
share
4VJE959
4PXY525
2A
1A

# The Gaia Building – Parking Demand

- 91 apartments, theater, café & office space
- 42 parking spaces supplied

➢Result: 237 adult residents with just 20 cars

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# Managing curb parking → Unbundling parking costs

Cost of parking "unbundled" from other goods & services

| Hourly & daily fees | Monthly parking fees | Parking condominiums |
|---|---|---|

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Cost of parking is revealed to the user

↓

People save money by using less parking, resulting in less parking demand, less driving, less congestion, less pollution

↓

Less parking needs to be funded and built

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More housing, less expensive housing

↓

Less homelessness

# Legalizing naturally occurring affordable housing

The problem:

"Nearly 40 East Palo Alto families in recent months have been turned out of their rental homes with as little as 10 days notice due to a recent citywide crackdown on illegal housing.... which have included converted garages"

– *Palo Alto Weekly, September 9, 2016*

# Legalizing naturally occurring affordable housing

- Senate Bill 1069, adopted Sept 2016
- Prohibits cities from imposing minimum parking requirements on:
  - accessory dwelling units located within ½ mile of public transit
  - Units built within an existing primary residence


Photo: Tom Radulovich

Removing minimum parking requirements lets homeowners add low-cost housing...or cafés, in the case of this San Francisco street

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# Parking: High & Low Traffic Strategies

| | Conventional Minimum Requirements | 'Tailored' Minimum Requirements | Abolish Minimum Requirements | Set Maximum Requirements |
|---|---|---|---|---|
| **Typical Tools** | ❖ Requirement > Average Demand<br>❖ Hide all parking costs | Adjust for:<br>❖ Density<br>❖ Transit<br>❖ Mixed Use<br>❖ 'Park Once' District<br>❖ On-street spaces<br>❖ ...etc. | ❖ Market decides<br>❖ Parking funded by parking revenues<br>❖ Manage curb parking with parking benefit districts | ❖ Limit parking to road capacity<br>❖ Manage on-street parking<br>❖ Market rate fees required |

| | | | |
|---|---|---|---|
| **Traffic** | **High** | ⟷ | **Low** |
| **Housing Costs** | **High** | ⟷ | **Low** |
| **Pollution** | **High** | ⟷ | **Low** |

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