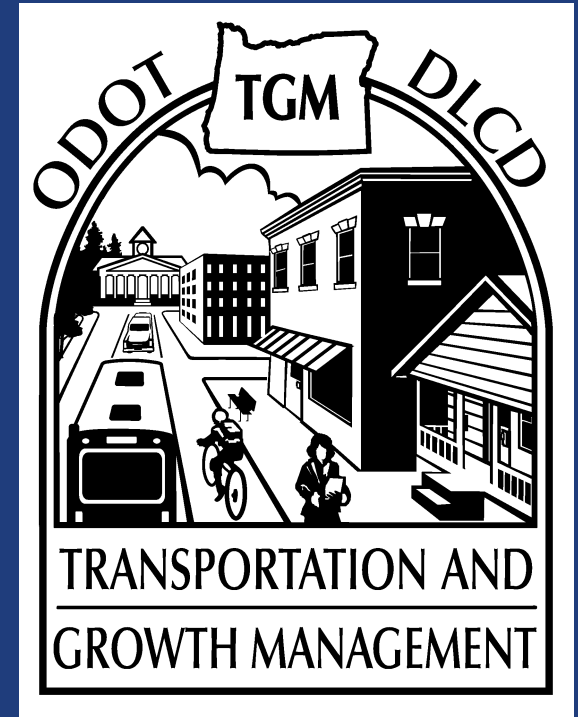# Parking Reform Resources

Evan Manvel and Laura Buhl
Transportation and Growth Management Program

Today's Webinar

- **Why parking reform matters (10 mins)**

- **DLCD parking work and resources (25 mins)**

- **Experiences: Salem, Albany, Bend, Independence (5 mins)**
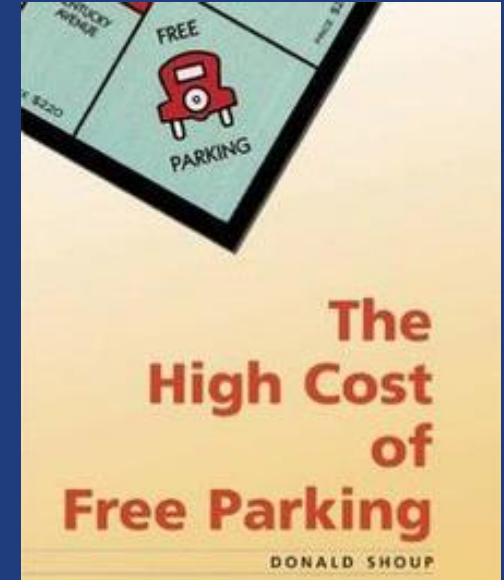
- **Questions/Discussion**

Why Parking Reform Matters

Old approach

Make sure each property has sufficient parking for peaks (avoids conflict; hides costs)

But now

- **Donald Shoup**
- **Climate disruption**
- **Housing cost problems**
- **People experiencing homelessness**
- **Changing demographics**
- **Physical inactivity epidemic**
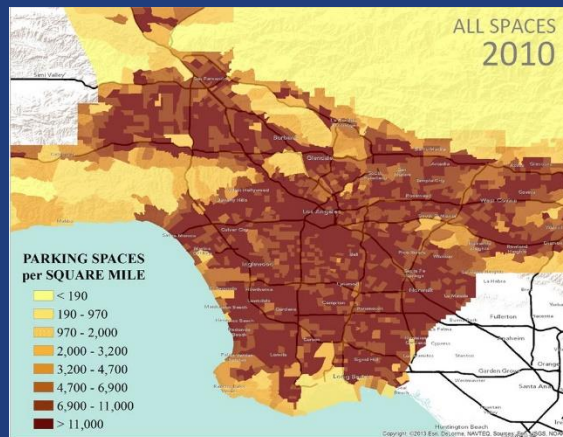

The High Cost of Free Parking — DONALD SHOUP

Three Questions for Planners

1. How much land does parking use?

2. How much does parking cost to provide?

3. Do we have the right amount of parking?

How Much Land is Used for Car Storage?

Corvallis, OR
11% for parking
10% for roads

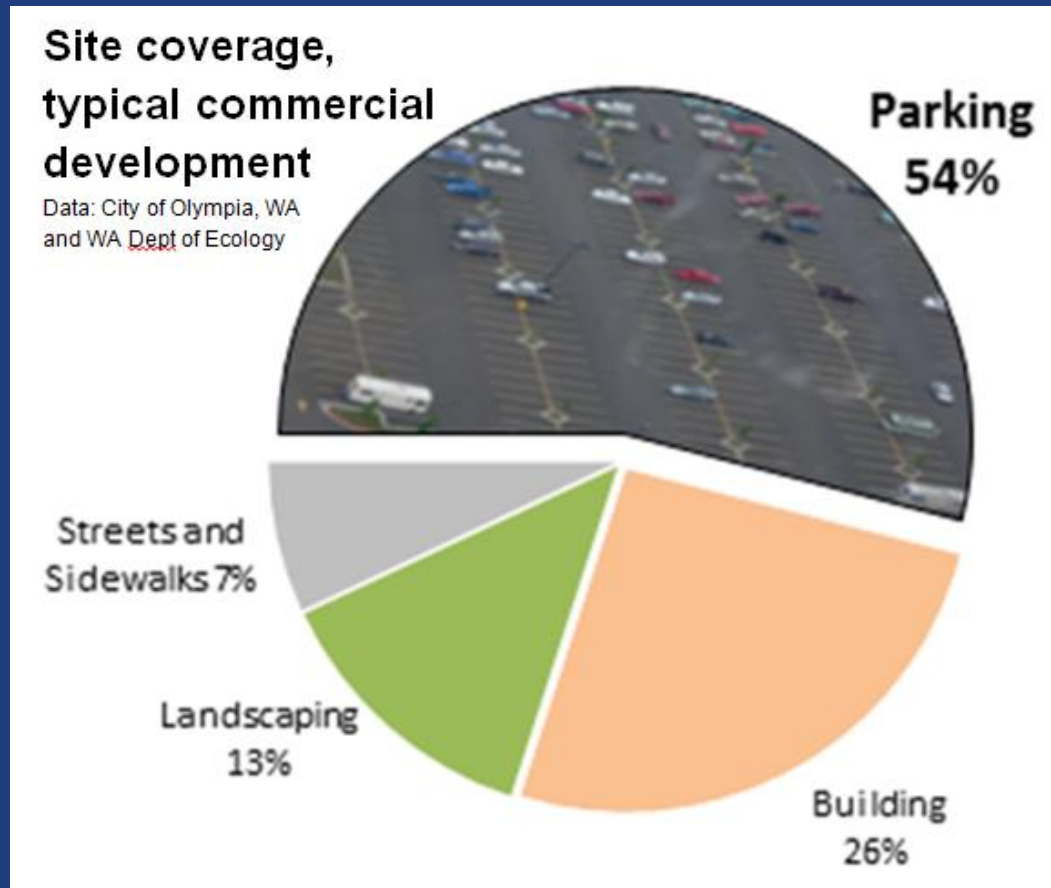## Los Angeles, CA
14% for parking
10% for roads

alleys	0.1%
buildings, OSU included	12.8%
building interiors	0.0%
buff	1.0%
decks	0.7%
driveways, gravel	0.2%
driveways, paved	3.1%
parking lot, gravel	0.9%
parking lot, paved	6.3%
path	1.4%
road, gravel	0.1%
roads, highway	0.9%
road, paved	8.7%
sidewalk	2.4%
Total Area Corvallis at 14.3 mi^2	

PARKING SPACES per SQUARE MILE
- < 190
- 190 - 970
- 970 - 2,000
- 2,000 - 3,200
- 3,200 - 4,700
- 4,700 - 6,900
- 6,900 - 11,000
- > 11,000

ALL SPACES 2010

Olympia, WA
54% of land in commercial sites for parking

Site coverage, typical commercial development

Data: City of Olympia, WA and WA Dept of Ecology

Parking 54%

Streets and Sidewalks 7%

Landscaping 13%

Building 26%

Downtown Off-Street Parking in Corvallis

Conclusion

Parking uses a huge amount of land

How Much Does Parking Cost and What Does that Effect?

Building a Parking Space

Eugene $42,000/space parking garage (no land, 2018)

Corvallis $62,000/space garage (including land, debt)
$11,000/space surface (including land)

Surface off-street $1,500 - $6,000
Residential garage $15,000 - $30,000

Off-Street $400/year to maintain (MAPC study)

MAPC

Parking's Share of Housing Costs

Litman (2019)
10-20% of Total Housing Cost

Gabbe and Pierce (2016)
17% of Rent

Studies focus on parking in larger cities, but similar data in others

Sample Parking Prices

Market Price

(non-central storage place, Corvallis)
Inside: $2688/year ($224/month)
Outside: $1068/year ($89/month)

City Price
Residential permits: $25/year ($2/month)
7 cents a day

* La Grande RV outside storage $80/mo

House Cars or House People?

**Oakland, CA
mandate for one space/unit
costs per apartment increased 18%**

30% fewer units built

18TH & WILLAMETTE
INTEGRATED FOURPLEX + 1 BEDS
4 UNITS \ 1 BUILDING \ 1 LOT

Eugene

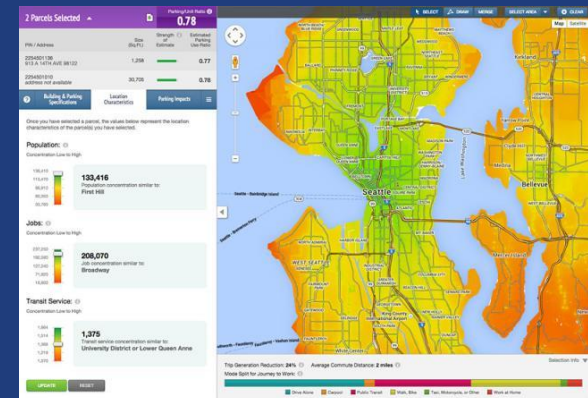|	Code	Proposal
Max Units	2	4
Parking	1/unit	0.75/unit

Conclusion

Parking is a significant expense and hurts housing choice (particularly multifamily)

How Much Built Parking is Unused?

Unused Parking in Multifamily Developments

- **Albany, OR: 30% avg. unused**

- **Hillsboro, OR: 25% avg. unused**

- **King County, WA: 40% avg. unused**

- **Bay Area, CA: 28% avg. unused**

Conclusion

Lots of Built Parking is Wasted

Thus Far

Parking uses a lot of land
Parking is a significant expense
Many parking spots are under/unused

There is significant room
to more precisely meet demand
and reduce excess costs

Parking Reform

Cities Across U.S. are Reducing Costly Parking Mandates

Progress on Removing Parking Minimums

Most cities have a parking *management* problem, not a parking *supply* shortage

downtown Klamath Falls

A parking shortage on one block does not mean we should mandate costly parking everywhere

It means we should better manage parking and improve walkability

Parking Management

1. Inventory parking supply

2. Check use levels

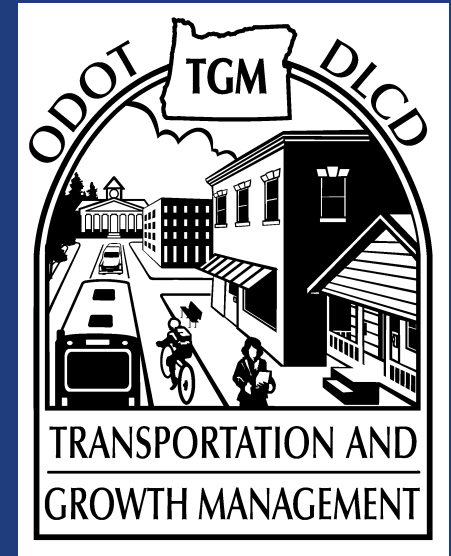3. Devise management plan, including pricing and enforcement

TGM Work

Publications (Old and New)

Projects

Presentations

Code Assistance & Parking Codes

(TGM Grant Proposals due July 31!)

TGM Publications

www.oregon.gov/LCD/TGM/Pages/Parking.aspx

Management
Parking Made Easy:
A GUIDE TO TAMING THE DOWNTOWN PARKING BEAST

PARKING MADE EASY

A Guide to Managing Parking in Your Community

Oregon Transportation & Growth Management Program

8 Quick Ways Cities Can Improve Parking Codes

Is your community concerned about housing costs, the cost of doing business, walkability, climate pollution, historic preservation or age-friendly development? Have you seen wasted land, turned away restaurant proposals in downtowns, or wished housing was cheaper to build?

There's something easy you can do – improve your parking code. Parking requirements affect all of these issues. While a thorough updating of parking codes is in order for most cities, these improvements can be made quickly.

Eight things cities can do today:

1. Allow required parking to be off-site, within walking distance

ODOT TGM DLCD
TRANSPORTATION AND GROWTH MANAGEMENT

Downtown Parking Management

A Powerful Tool to Meet Community Goals

The Costs of Mismanaged Parking

Storing cars is an expensive challenge

If all the spots are taken, customers may choose to shop elsewhere.

If there's too much parking, a place becomes uninviting.

Lost Business

Customers want to get to businesses. If parking is poorly managed, and all the spots are taken, customers may shop elsewhere. But *too much* parking can also harm businesses, by degrading the walking environment in local business districts. If an area is dominated by parking lots, people will park only at the place they were planning on going and leave directly, instead of parking nearby, walking past other businesses, and lingering downtown.

Cities should aim to get supply just right – not too much, but enough. Some call

ODOT TGM DLCD
TRANSPORTATION AND GROWTH MANAGEMENT

A Strategic Guide to Implementing
Parking Reform

Reducing costly parking mandates can be a challenging task for planners and decision-makers.

Too often, the politically easiest thing to do is to continue the pattern of the past: force new development to provide excessive parking, avoiding potential conflict with those accustomed to abundant, "free" (subsidized) parking. This conveniently hides the large costs of parking, but makes it harder to walk and easier to drive, artificially driving up the demand for parking and the costs of housing, doing business, and getting around.

How to break the cycle? Here are some recommendations on how cities might go about reforming the extremely costly, counter-productive market distortion of mandated car parking.

Parking Made Easy (82 pages, 2013)

www.oregon.gov/LCD/TGM/Pages/Parking.aspx

PARKING MADE EASY

A Guide to Managing Parking in Your Community

Oregon Transportation & Growth Management Program

- Consensus-building around parking policies
- Unbundled parking costs
- Local parking studies
- Parking management plans
- Parking standards: minimums and maximums
- Parking signs and availability information
- Shared parking
- Parking turnover's effect on business sales
- Parking fees and time limits
- Parking facility location, landscaping, and design
- Parking availability and the 85% Rule
- Parking benefit districts and parking cash-outs

8 Quick Ways Cities Can Improve Parking Codes

Is your community concerned about housing costs, the cost of doing business, walkability, climate pollution, historic preservation or age-friendly development? Have you seen wasted land, turned away restaurant proposals in downtowns, or wished housing was cheaper to build?

There's something easy you can do – improve your parking code. Parking requirements affect all of these issues. While a thorough updating of parking codes is in order for most cities, these improvements can be made quickly.

Eight things cities can do today:

1. Allow required parking to be off-site, within walking distance

There's no reason for most required parking to be located on the same site as the use. Yet in too many local ordinances, builders are required to provide parking on the *exact site* of the development, instead of just providing residents and visitors who drive with space to park.

This can mean central buildings in downtowns never get redeveloped, as they

Cities that do some version of this:

> Albany (for some uses such as theaters, up to 1000 feet), Ashland, Baker City (500 feet), Cascade Locks (required parking may be located anywhere downtown), Corvallis (in the downtown zone, 750 feet), Klamath Falls (500 feet for some uses), Lafayette, Lake Oswego, Roseburg, Salem (for employees and residents downtown, up to 2000 feet), Stayton (500 feet), TGM Model Code.

Sample code language:

> Vehicle parking spaces required by this Chapter may be located on another parcel of land within *[one-quarter mile/2000 feet/one-half mile]* of the use it serves. The distance from the parking area to the use shall be measured from the nearest parking space to a building entrance, following a sidewalk or other pedestrian route.

Go Beyond the Site

**Allow parking to be off-site,
within walking distance**
*Let parking be provided within 2000 feet;
lots of cities do this for downtowns*

**Count curbside frontage
to count toward mandates**
*Many cities do a limited version of this downtown.
Bonus: helps reduce curb cuts, improve walkability*

Shared parking for uses with different peaks
Cities ask for proof of non-conflict; written instrument

Help Developments You Want

Waive/reduce mandates for low-car housing types

5-50% reductions for senior housing, affordable housing, transit-oriented, mixed-use, bike-heavy

Waive/reduce mandates for renovation, small business

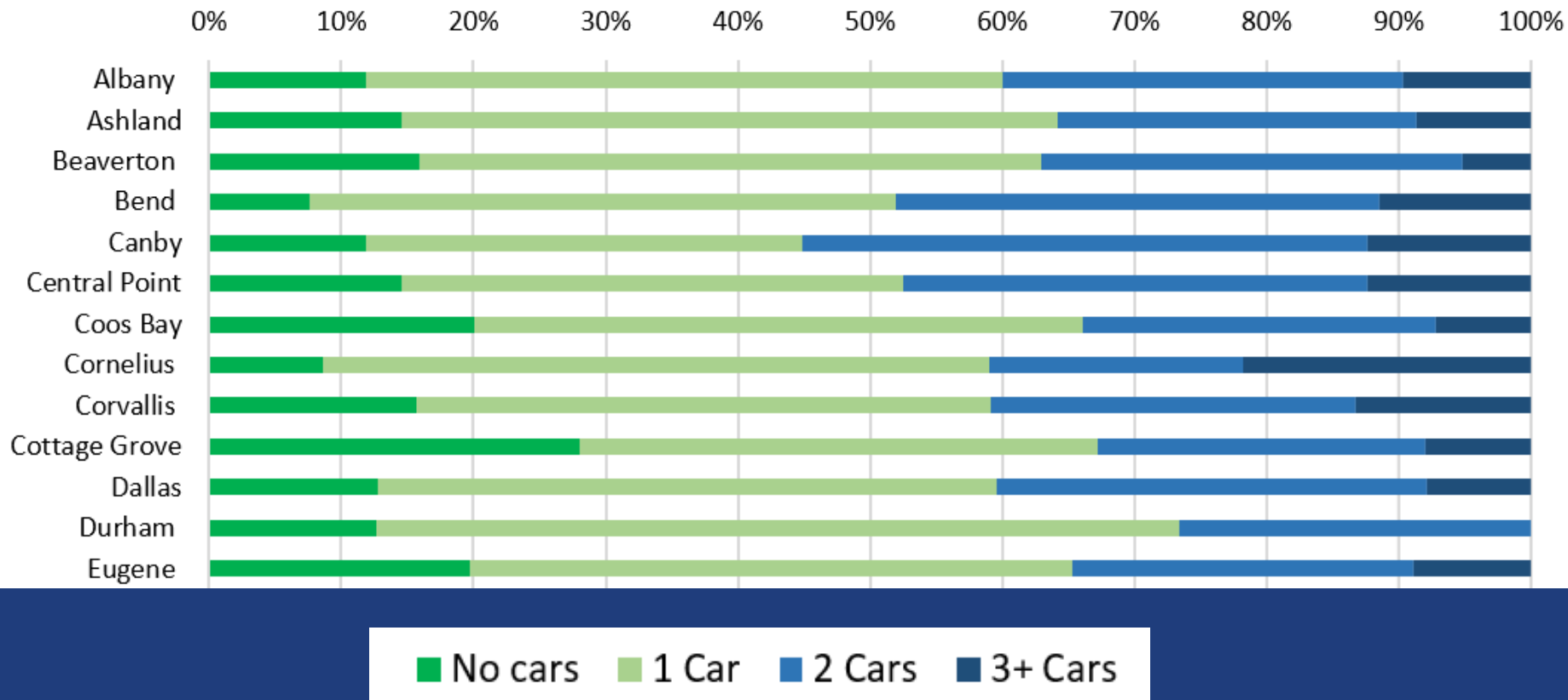*Promote reuse of historic buildings, long-vacant*

Set Parking Mandates No Higher than 1 space/unit
(0.5/u for studios and one bedroom apartments)

Several cities are close to this in downtowns or allow variances based on onerous parking studies

Portland and Salem have no parking mandates downtown and along frequent transit corridors

Car Ownership in Small Cities, Rural Areas is Not Too Different

Vehicle Ownership in Renter Households, by City

Legend: No cars | 1 Car | 2 Cars | 3+ Cars

Cities shown (top to bottom): Albany, Ashland, Beaverton, Bend, Canby, Central Point, Coos Bay, Cornelius, Corvallis, Cottage Grove, Dallas, Durham, Eugene

Parking is Usually Bundled and Not Paid for Separately

96-99% of parking is bundled, meaning:
higher rents and home prices,
lower paychecks, higher prices,
non-drivers subsidize drivers

The economy picks up the tab for free parking - an enormous inducement to drive

Unbundling Parking

Stop requiring people to pay for other people's parking (lease it separately)

Unbundled Multifamily Required In

Santa Monica, Berkeley, Seattle, Oakland, San Francisco, San Diego

Unbundled Commercial in Santa Monica

Fee-In-Lieu Program

Several cities have such a program in codes; often not used

A Strategic Guide to Implementing
Parking Reform

Reducing costly parking mandates can be a challenging task for planners and decision-makers.

Too often, the easiest thing to do is to continue the pattern of the past: require new development to provide lots of parking, avoiding potential complaints from people accustomed to abundant, "free" (subsidized) parking.

This hides the large costs of parking, but makes it harder to walk and easier to drive, artificially driving up the demand for parking and the costs of housing, doing business, and getting around.

How to break the cycle? Here are some recommendations on how cities might go about reforming the costly, counter-productive market distortion of mandated car parking.

Understanding the Fears

The average person worried about parking reform usually recalls a time about when they failed to find free, available parking exactly where and when they wanted it. That experience leads to a belief: mandating more parking will make travel easier and more pleasant, at no cost to themselves.

Embedded in this story are important assumptions. First, the assumption is parking is a public good, where the government can and should help people store their vehicle wherever they go at little or no cost. Second, someone else will pay for the costs of providing parking (people often ascribe this to a "developer" who makes large profits). Third, walking a short distance from parking to a destination is a problem.

This narrative isn't easy to break down. The rest of this piece suggests some ways around it.

1. Provide Data – and Images

Cities generally try to meet parking demand. Here's the good news: when communities take the time to collect data, they nearly always find there is sufficient *supply* of car parking within a block or two of each location, it just needs to be better *managed* through signage, time limits, or pricing. (Parking surveys can be a small effort of just a few hours; larger efforts are better, or you can hire a professional).

Walking, on-the-ground studies of parking supply and use is one of the best ways to get over the anecdotal

Just some of the land in downtown Klamath Falls devoted to parking

Parking Reform is a *Psychological* Problem

Zero as a Special Price: The True Value of Free Products

Kristina Shampanier
Massachusetts Institute of Technology, 38 Memorial Drive, E56-311, Cambridge, Massachusetts 02142, kshampan@mit.edu

Nina Mazar
Joseph L. Rotman School of Management, University of Toronto, 105 St. George Street, Toronto, Ontario M5S 3E6, Canada,
nina.mazar@utoronto.ca

Dan Ariely
Duke University, One Towerview Road, Durham, North Carolina 27708, dandan@duke.edu

People Want Parking Unicorns

200 square feet of space precisely at the place they want exactly when they want for no cost

Parking Management

**Using parking management,
people can have a space
nearly where and *when* they need it.**

**For larger cities,
nearly at the price they want it.**

The Public Street in Front of Your House is Not Your Private Parking Space
(*unless so designated)

Walking a block or two is okay (even pleasant)

Use Data – and Images

Ask skeptics to help collect data

Just some of the land in downtown Klamath Falls devoted to parking

a study that
or each hour

Figure 5. Parking At or Near Capacity by Time of Day and Street Segment

Street	Location	9AM	10AM	11AM	12AM	1PM	2PM	3PM	4PM	5PM
Second	Vine to Ash	◆	◆	◆						
Second	Ash to Sherman			◆						
Second	Sherman to Grant							◆		◆
Second	Grant to Maple					◆	◆	◆		
Second	Maple to Oak					◆				
Second	Oak to A					◆	◆			
Main	Ash to Sherman							◆	◆	◆
Main	Sherman to Grant		◆				◆			
Park	Sherman to Grant	◆	◆			◆	◆		◆	◆
Maple	3rd to 2nd	◆		◆				◆	◆	
Maple	2nd to Main			◆	◆	◆		◆		
Maple	Park to Grove	◆	◆		◆	◆	◆	◆		

An example of plentiful parking in Ontario, OR

Approach Reform Incrementally
If reform works, people may be more open to change

Focus on What People Care About
What's your community most focused on? Housing costs? Homelessness? Economic development?

Combine It With Other Reforms
Parking reform should be part of something bigger
And perhaps partnered with more controversial items

Language

A Strategic Guide to Implementing

Parking Reform

Reducing costly parking mandates can be a challenging task for planners and decision-makers.

Too often, the politically easiest thing to do is to continue the pattern of the past: force new development to provide excessive parking, avoiding potential conflict with those accustomed to abundant, "free" (subsidized) parking. This conveniently hides the large costs of parking, but makes it harder to walk and easier to drive, artificially driving up the demand for parking and the costs of housing, doing business, and getting around.

How to break the cycle? Here are some recommendations on how cities might go about reforming the extremely costly, counter-productive market distortion of mandated car parking.

Don't Say	Instead Use
Parking requirements	Costly parking mandates
Parking needs	Parking demand
Free parking	Subsidized (or unpriced) parking
Developers	Local builders and contractors
Parking	Car storage (occasionally)

Tell and Ask for Stories from Favorite Places and Other Communities

Would the development be possible under current regulations?

Might overparking hinder it?

Where else has parking reform worked? Might that help allay fears?

The Messenger is the Message

Have community members (builders, affordable housing providers, renters, etc.) tell their stories

Engage in Community Conversations and Meetings
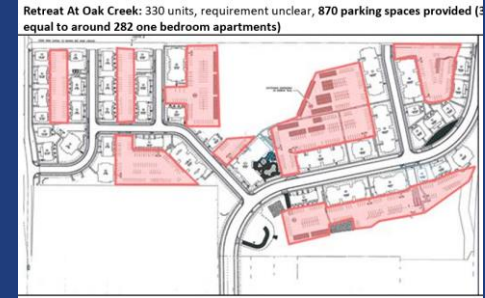
No Mandated Parking

does not mean

No Provided Parking

Builders are nervous of risk and the unknown

Lenders are nervous of risk and the unknown

Experience shows builders will build parking

Builders Will Still Build Parking Tenants Demand
get your local data

Retreat At Oak Creek: 330 units, requirement unclear, 870 parking spaces provided (3 equal to around 282 one bedroom apartments)

Portland: Apartments 0.7 spaces/unit

Downtown Los Angeles: 1.2 spaces/unit

Salem: 1.75+ spaces/unit

Corvallis: 2+ spaces/unit near edge

Eugene: lenders require downtown builders to build garage parking

Stories from Around Oregon

Case Study: Albany

Reviewed development code in 2018

Councilors concerned about spillover parking

Hired Rick Williams Consulting to collect and present data about 16 sites

Case Study: Albany

Average 30% unused; three sites fully used

Demand averaged 1.23 spaces/unit

Code remained the same

Case Study: Salem

Updated multifamily code 2018-2020

City staff and consultant decided to reduce parking mandates; data about rent impacts

Salem resident pushed for further reforms

Council voted 6-3 to eliminate mandates in downtown and within ¼ mile of frequent transit

Salem – Keys to Success

Two council champions

Developers reassuring they'd still build parking

Addressing parking during debate
where other things are more controversial

Supportive staff

Previous council experience reducing
parking for a downtown development

Salem – Keys to Success

Housing shortage being central issue

Combining progressive, free market votes

Splitting votes into multiple issues and motions (intuitive to different people)

Councilor	Andersen	Ausec	Mayor Bennett	Hoy	Kaser	Leung	Lewis	Nanke	Nordkye
Motion									
To eliminate mandates in downtown	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
To eliminate mandates everywhere	Yes	No	No	No	Yes	No	No	Yes	Yes
To eliminate mandates near transit	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes
To eliminate mandates for SROs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	100%	75%	25%	50%	50%	25%	50%	100%	100%
"progressive" average	67%								
"conservative" average	58%								

Case Study: Bend

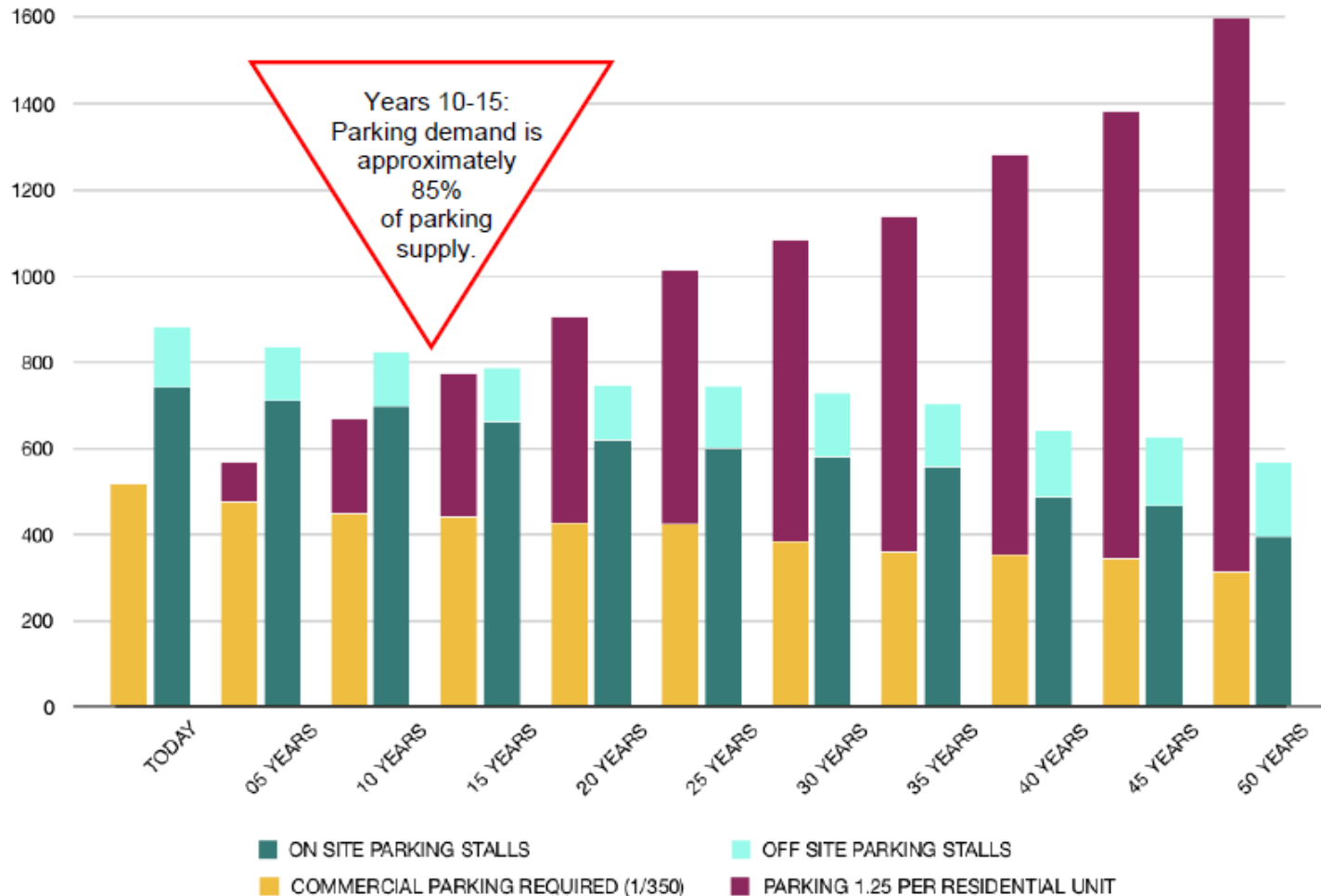Trying to redevelop a neighborhood near downtown (Bend Central District)

Little redevelopment or concerns about parking

Waived parking mandates for up to 10,000 sq. feet building footprint

Able to revisit if parking gets scarcer

Case Study: Bend

Figure 7. Proposed Code, Higher Parking Demand Scenario

Anecdote: Independence

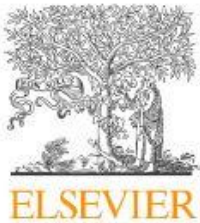Got a call about parking problem

Talked it through and gave presentation

Parking problem was:

- One block in each direction from the main intersection
- One business owner parking in front
- Loading zones
- Event parking

Seattle reform
2012-2017 saved $537 million

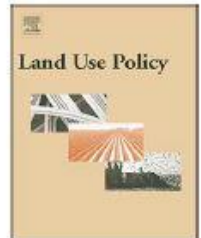Land Use Policy 91 (2020) 104053

Contents lists available at ScienceDirect

Land Use Policy

journal homepage: www.elsevier.com/locate/landusepol

Land Use Policy

Parking policy: The effects of residential minimum parking requirements in Seattle

C.J. Gabbe[a,*], Gregory Pierce[b], Gordon Clowers[c]

[a] Department of Environmental Studies and Sciences, Santa Clara University, 500 El Camino Real, Santa Clara, CA, 95053, United States
[b] Luskin Center for Innovation, Luskin School of Public Affairs, University of California, Los Angeles 3250 Public Affairs Building, Box 951666, Los Angeles, CA, United States
[c] Seattle Department of Construction and Inspections, City of Seattle, 700 Fifth Ave., Suite 2000, P.O. Box 34019, Seattle, WA, 98124-4019, United States

ARTICLE INFO   ABSTRACT

Next Steps

Review resources
www.oregon.gov/LCD/TGM/pages/parking.aspx

Review your parking code

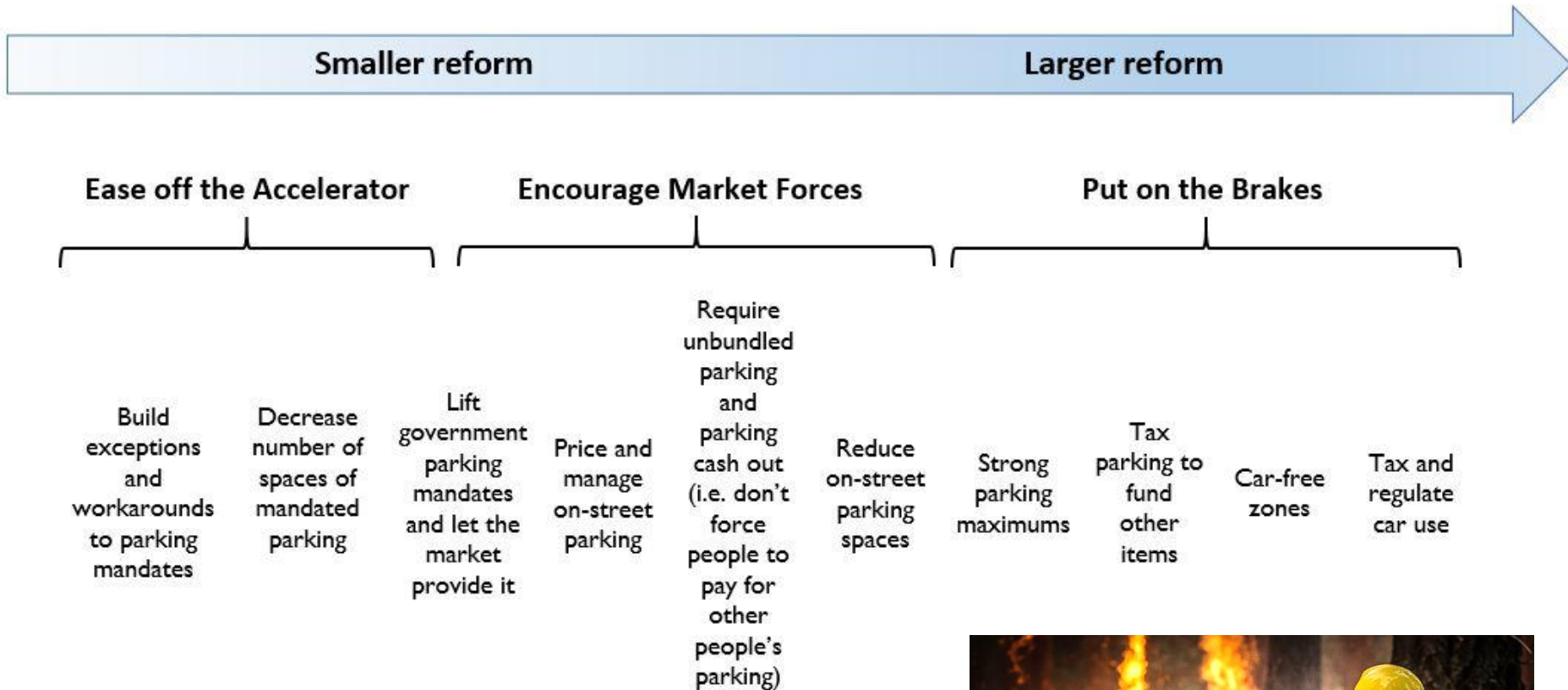**Choose a code update to piggyback on**

Ask for assistance

Evan.Manvel@state.or.us
Laura.Buhl@state.or.us

Discussion

Questions?

What more should TGM be doing?
(possibly: guide to managing residential parking)
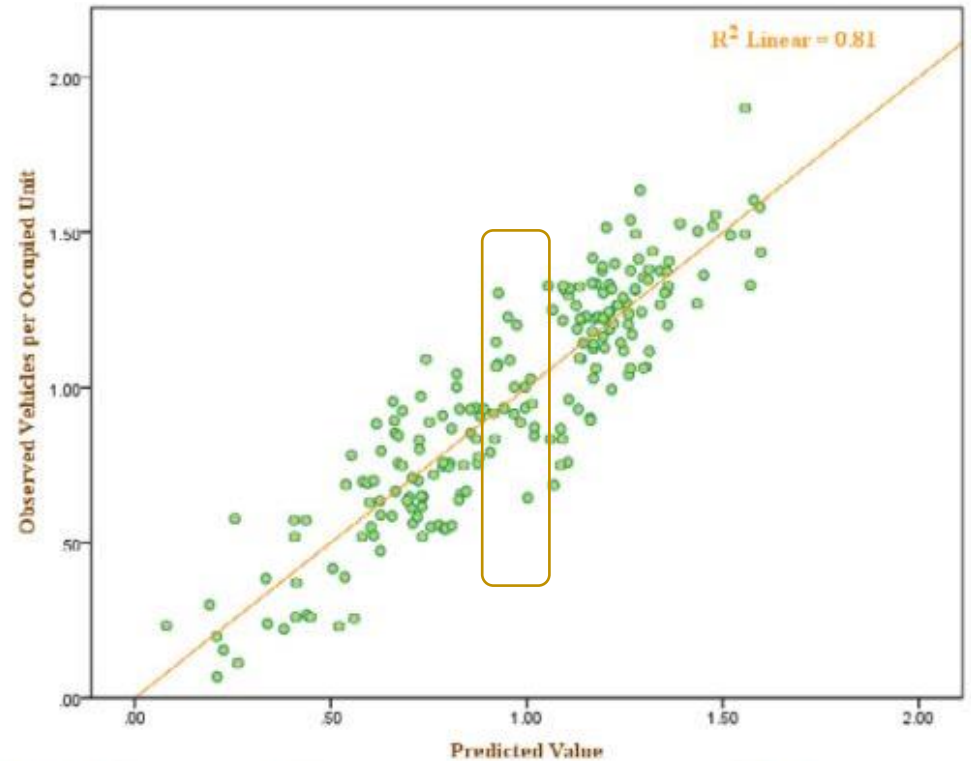
Reforming How Government Treats Cars: A Scale

Smaller reform → Larger reform

Ease off the Accelerator | **Encourage Market Forces** | **Put on the Brakes**

| Build exceptions and workarounds to parking mandates | Decrease number of spaces of mandated parking | Lift government parking mandates and let the market provide it | Price and manage on-street parking | Require unbundled parking and parking cash out (i.e. don't force people to pay for other people's parking) | Reduce on-street parking spaces | Strong parking maximums | Tax parking to fund other items | Car-free zones | Tax and regulate car use |

Lots of variation and factors

Table 1: Independent Variables and Summary of Regression Results

Independent variable	Individual R Square	Stepwise R Square
Gravity measure of transit frequency	55.5%	55.5%
Percent of units designated affordable	27.6%	67.1%
Average occupied bedroom count	34.3%	73.7%
Gravity measure of intensity (population + jobs)	53.3%	76.2%
Units per residential square feet	17.1%	78.7%
Average rent	6.7%	80.0%
Parking price as a fraction of average rent	18.1%	81.0%

"Half my advertising spend is wasted; the trouble is, I don't know which half."

John Wanamaker or Lord Leverhulme

Fig. 3: Observed vehicles per occupied unit versus modeled value.

"People Will Still Own Cars"

Does Parking Supply Change How Much People Drive and Own Cars?

Best Evidence Thus Far: Yes

Bundled parking correlates with:
- **Higher car ownership**
- **Higher rates of driving even with same car ownership**

ABSTRACT

We investigate the relationship between bundled residential park... on use of public transportation, and controlling for vehicle owne... the price of housing, the time and stress of finding parking ... households with bundled parking to drive more and use transit ... both households own vehicles. To date this idea has been difficul... this prediction using the public transportation module of the 20...

Bundled parking and vehicle ownership: Evidence from the American Housing Survey

Michael Manville

University of California, Los Angeles
mkm253@cornell.edu

Abstract: This article estimates the effect of bundled residential parking—parking whose price is included in the rent or purchase price of housing—on household vehicle ownership. Using data from the American Housing Survey, I show that the odds of households with bundled parking being vehicle-free are 50–75 percent lower than the odds of...

Parking Spaces and Driving Mode Share

McCahill, C. T., Garrick, N., Atkinson-Palombo, C., & Polinski, A. (2016). Effects of parking provision on automobile use in cities: inferring causality.

An increase in parking provision from 0.1 to 0.5 parking spaces per person is associated with an increase in driving mode share of roughly 30%.
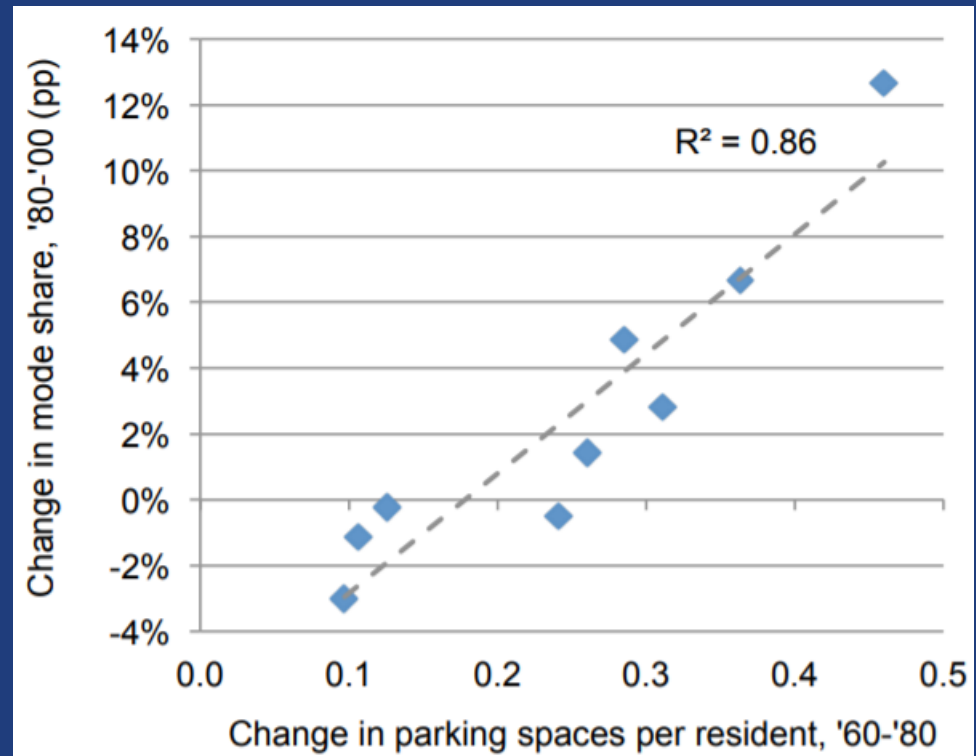
Best Evidence: Pricing Matters a Lot

- **Case studies LA, DC +60% driving if parking "free"**

- **California parking cash out reduced drive to work 17%**

- **Minneapolis: 11% fewer employees drive to work under parking cash out**

TGM Ed/Outreach Projects

Banks parking management (trail visitors and downtown)

Cascade Locks parking management downtown

Often a theme in projects (e.g. Klamath Falls downtown)

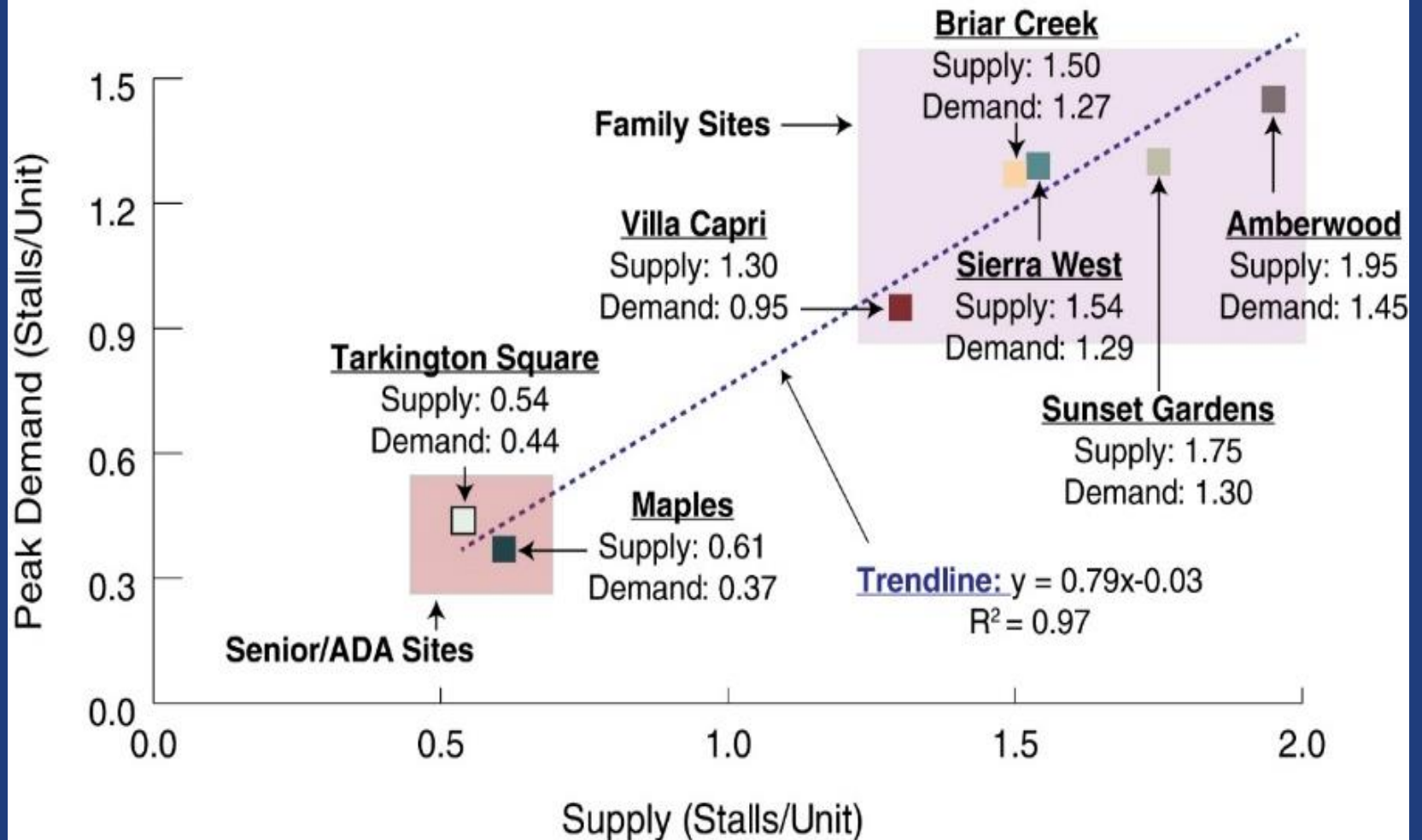*Example: Stall Striping*

TGM Code Assistance

Offered parking code review Feb 2019 completed for Gladstone and Tigard

**Cascade Locks Code Assistance
No mandated parking downtown**

**Current Madras code project
(1 space/unit residential)**

**Updating TGM Model Code**

Demand Versus Supply

Briar Creek
Supply: 1.50
Demand: 1.27

Family Sites →

Villa Capri
Supply: 1.30
Demand: 0.95 →

Sierra West
Supply: 1.54
Demand: 1.29

Amberwood
Supply: 1.95
Demand: 1.45

Tarkington Square
Supply: 0.54
Demand: 0.44

Sunset Gardens
Supply: 1.75
Demand: 1.30

Maples
Supply: 0.61
Demand: 0.37

Trendline: $y = 0.79x - 0.03$
$R^2 = 0.97$

Senior/ADA Sites

Y-axis: Peak Demand (Stalls/Unit) — 0.0, 0.3, 0.6, 0.9, 1.2, 1.5

X-axis: Supply (Stalls/Unit) — 0.0, 0.5, 1.0, 1.5, 2.0

Hillsboro Parking Data from Lancaster Engineering
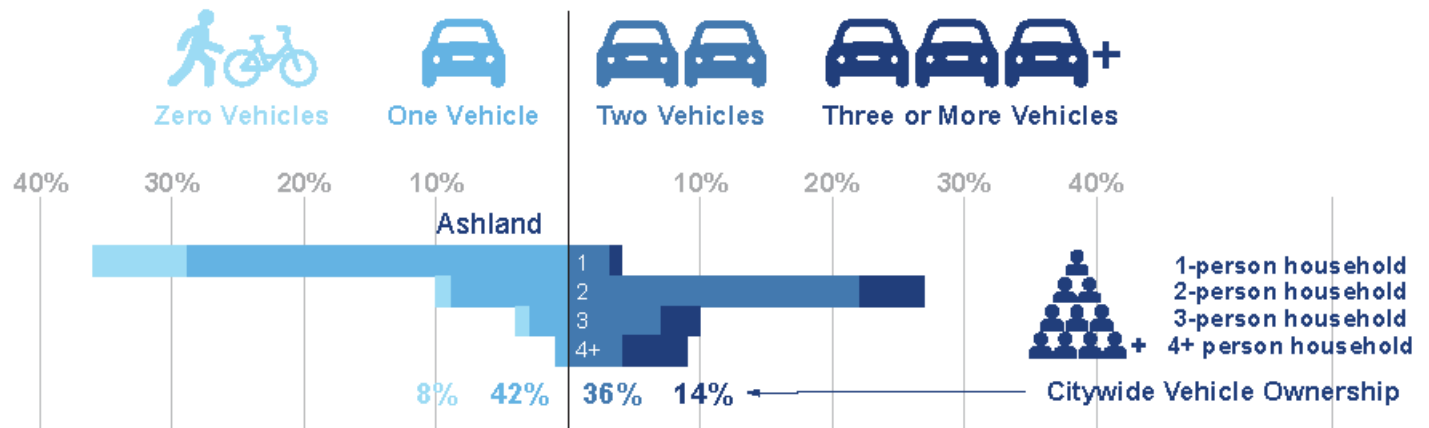
Anticipated Demand
American Community Survey 2013-2017
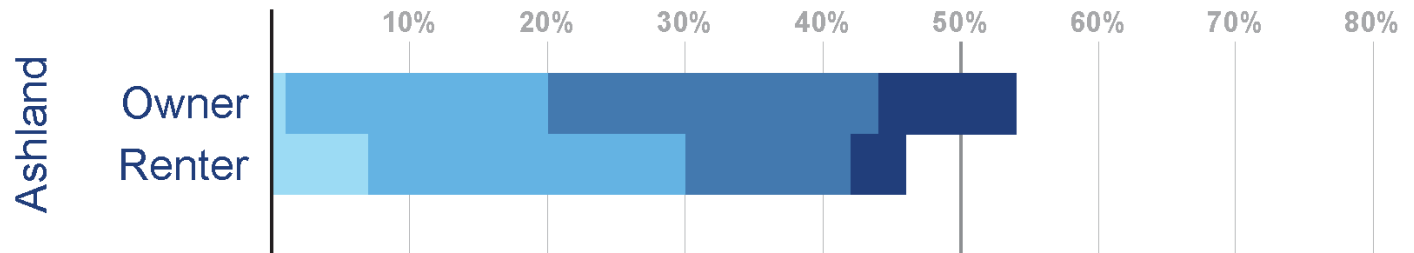
Rulemaking for Executive Order 20-04

Agencies shall exercise… all authority… to facilitate Oregon's achievement of… emissions reduction goals

And prioritize implementation of Oregon's Statewide Transportation Strategy

- **Promote parking cash-out**
- **Update codes; reduce mandates and add maximums**
- **Promote parking restrictions and pricing**

Recommended Reforms (1)

Remove parking mandates

and
manage on-street parking

Recommended Reforms (1a)

If not repeal:

- ✓ Reduce mandates

- ✓ Expand exemptions

- ✓ Provide flexibility

Expand Exemptions

Target What You Want and Exempt It from Costly Parking Mandates

- ✓ **Affordable Housing**
- ✓ **Senior Housing**
- ✓ **Historic Building Reuse**
- ✓ **Small Businesses**
- ✓ **Transit-Oriented Housing**
- ✓ **Downtown Housing**
- ✓ **Bike-Oriented Housing**
- ✓ **Reuse of Long-Vacant Buildings**

Lost Housing Opportunities

San Francisco:

houses without off-street parking $46,000 less than with

affordable to 24% more households (1997)

Corvallis Land Development Code

l. Bedroom Size Determination - Multi-dwelling units having a bedroom in excess of 160 sq. ft. shall provide added vehicle and bicycle parking of 0.5 parking spaces per oversized bedroom.

m. Fractions - When the calculated sum of the required vehicle and/or bicycle parking spaces includes a fraction equal to or greater than one half of a space (0.5 or more), a full space shall be required. If the fraction is less than 0.5, an additional space shall not be required.

Corvallis Land Development Code Already Does Some of This

Location of Required Parking - Required parking shall be provided on property located within the Central Business (CB) and Riverfront (RF) Zones and within 750 feet of any new development.
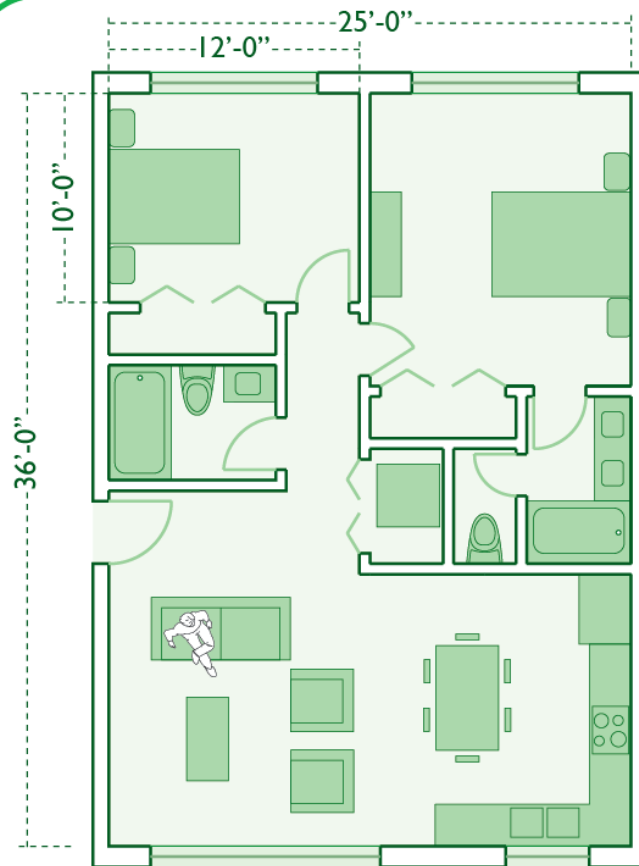
Corvallis Land Development Code Starts to Do This Already

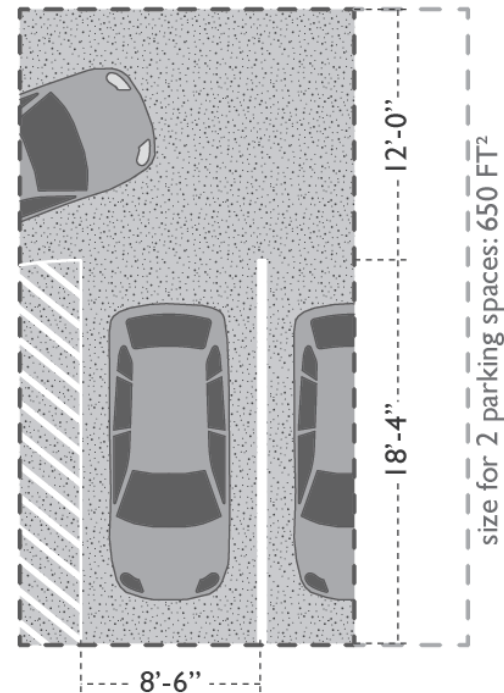1. A reduction of up to 10 percent … if a transit stop… is located on-site or within 300 ft.

2. A reduction of up to 10 percent… For every 8 required bicycle parking spaces… can reduce one space

(Ashland allows up to 50% less)
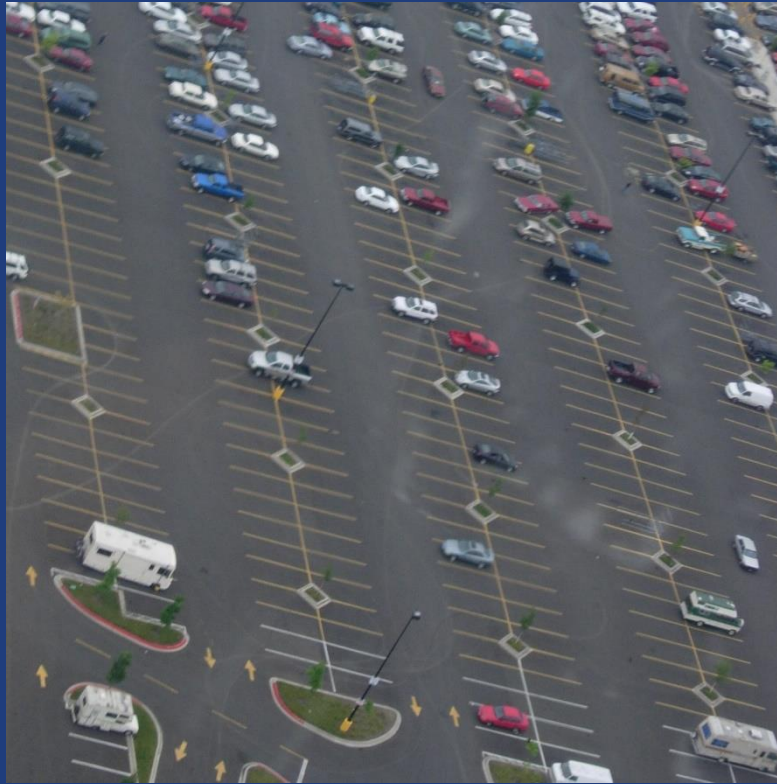
Opportunity Cost and Land Cost   *Sightline*

**2 BEDROOM APARTMENT
900 FT²**

**1.5 PARKING SPACES
INCLUDING AISLES
488 FT²**

Parking Management

People regularly walk significant distances from where they park – but sometimes don't perceive it.
(The Mall)

National Study:

Up to 27 parking spots per household Costing $6,500 to $192,000 per household

City	New York	Philadelphia	Seattle	Des Moines	Jackson, WY
Total Parking Spaces	1.85 million	2.2 million	1.6 million	1.6 million	100,119
Parking density per acre	10.1	25.3	29.7	28.4	53.8
Parking spaces per household	0.6	3.7	5.2	19.4	27
Total replacement cost of parking	$20.1 billion	$17.5 billion	$35.8 billion	$6.4 billion	$711 million
Parking cost per household	$6,570	$29,974	$117,677	$77,165	$192,138

Parking: Many Issues

Off-street parking

Code mandates

Parking design and orientation

Parking's relation to bikeways, sidewalks

Pricing, meter technology, etc.

Residential parking (permits, etc.)

Parking in business districts

Event parking

Parking: Many Issues

Publicly subsidized parking garages

Tax treatment of parking lots & employer parking benefits

Storm water and heat island effects

Accessibility for those who cannot walk

Equity for those who do not drive

Bike parking

Dispersion of land uses

Current Policy Questions

How much car storage should cities be allowed to mandate in new residential and commercial developments?
(HB 2001 and Executive Order 20-04)

What can we do to reduce climate pollution from driving?
(Executive Order 20-04)

You Won't Believe #7!

with community examples

8 Quick Ways Cities Can Improve Parking Codes

Is your community concerned about housing costs, the cost of doing business, walkability, climate pollution, historic preservation or age-friendly development? Have you seen wasted land, turned away restaurant proposals in downtowns, or wished housing was cheaper to build?

There's something easy you can do – improve your parking code. Parking requirements affect all of these issues. While a thorough updating of parking codes is in order for most cities, these improvements can be made quickly.

1. Allow parking to be off-site

2. Count curbside frontage to count toward mandates

3. Waive mandates for low-car housing types

4. Waive mandates for renovation and small business

5. Set mandates no higher than 1/unit (0.5 for studios)

6. Allow shared parking

7. Require parking unbundling

8. Have a fee-in-lieu program

Affordable Housing Development
(King County WA)

one space/unit leasing costs +12.5%

two spaces/unit leasing costs +25%

Parking means cities build fewer affordable housing units

Best Predictors of Demand
(King County, WA)

Transit Frequency
Population & Jobs Density

Somewhat less so: bedroom count

Independent variable	Individual R Square	Stepwise R Square
Gravity measure of transit frequency	55.5%	55.5%
Percent of units designated affordable	27.6%	67.1%
Average occupied bedroom count	34.3%	73.7%
Gravity measure of intensity (population + jobs)	53.3%	76.2%
Units per residential square feet	17.1%	78.7%
Average rent	6.7%	80.0%
Parking price as a fraction of average rent	18.1%	81.0%

Table 1: Independent Variables and Summary of Regression Results.

Other Cities in the World Approach Parking Differently

On each site   vs.   Area management

Gov't mandated   vs.   Market provided

Excess parking   vs.   Meeting demand or limiting supply

Recent DLCD Presentations

Independence downtown 2019

Oregon Main Streets Conference 2019

Corvallis community meeting Feb 2020

HB 2001 TAC/RAC March 2020

Proposed for OAPA and League of Oregon Cities conferences 2020

The cost of parking?
1.2 to 3.7% of GDP,
about $1250 per person

Mark Delucchi,
University of California, Berkeley