# SPUR MWS PUR

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## **UCDAVIS**

#### POLICY INSTITUTE FOR ENERGY, ENVIRONMENT AND THE ECONOMY

Austin Brown, Ph.D. Executive Director

SPUR Forum 9/26/2017 Is Driving Really Free?



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## **Does the User Pay?**

Priced	Unpriced / Partially Priced
Vehicle	Infrastructure Use
Fuel	Congestion
Accidents	Parking
Time	Pollution

## **What Can Pricing Do?**

### Pay for infrastructure

Example: Fuel taxes, VMT pricing







#### Internalize externalities

Example: Congestion pricing



Improve equity

Price according to willingness to pay

Example: Subsidized transit Example: Express lanes

## The Danger of "Free"









#### What Can Cities Do Now?

- Pilots but get to scale
   Start local
- 2. If you can't price, incentivize Pooling may be a good target
- 3. Get something in place now for new technologies Once it seems free, it's much harder to go back
- 4. Start now Work with stakeholders

## **Last Thoughts**

- No one likes to pay
- The transportation system could be much better
  - Safety, congestion, pollution, equity
- Pricing would be a powerful tool
- New technologies and business models are a risk and an opportunity
- The role of public policy is to help us do the things that are hard but are still a good idea

# 3 REVOLUTIONS

Bringing academic, government, private industry, and public interest stakeholders together to ensure that vehicle sharing, electrification and automation are steered towards the public interest











building a new energy future





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Thank You.

dokbrown@ucdavis.edu







## THREE TYPES OF PROPOSED PROJECTS



#### **Cordon Pricing:**

- San Francisco Congestion Pricing
- Treasure Island Congestion Pricing

#### **Express Lanes:**

- MTC Express Lanes Network
- VTA Express Lanes Network
- US-101 Express Lanes

<u>INCLUDED</u> IN PLAN BAY AREA 2040, BUT SCALED-BACKTO REDUCE GHG

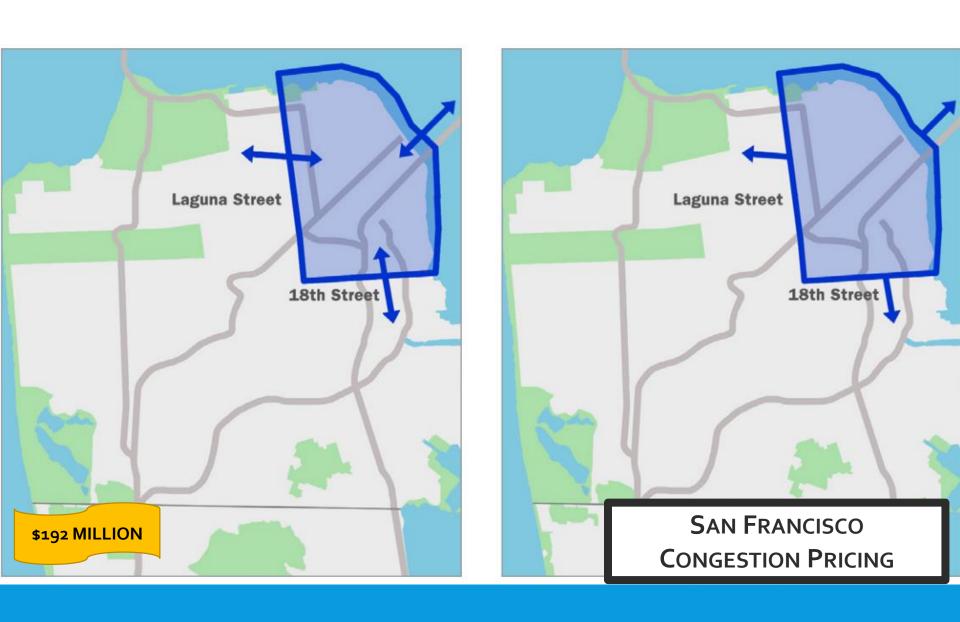
#### **Interregional Tollways:**

- TriLink Tollways (Brentwood to Tracy)
- SR-152 Tollway (Gilroy to Los Banos)
- SR-17 Tollway + Santa Cruz LRT (Los Gatos to Santa Cruz)

<u>NOT</u> IN PLAN BAY AREA 2040; ONGOING PLANNING CONTINUES

#### INCLUDED IN PLAN BAY AREA

Photo Sources: Wall Street Journal; Metropolitan Transportation Commission; Financial Express

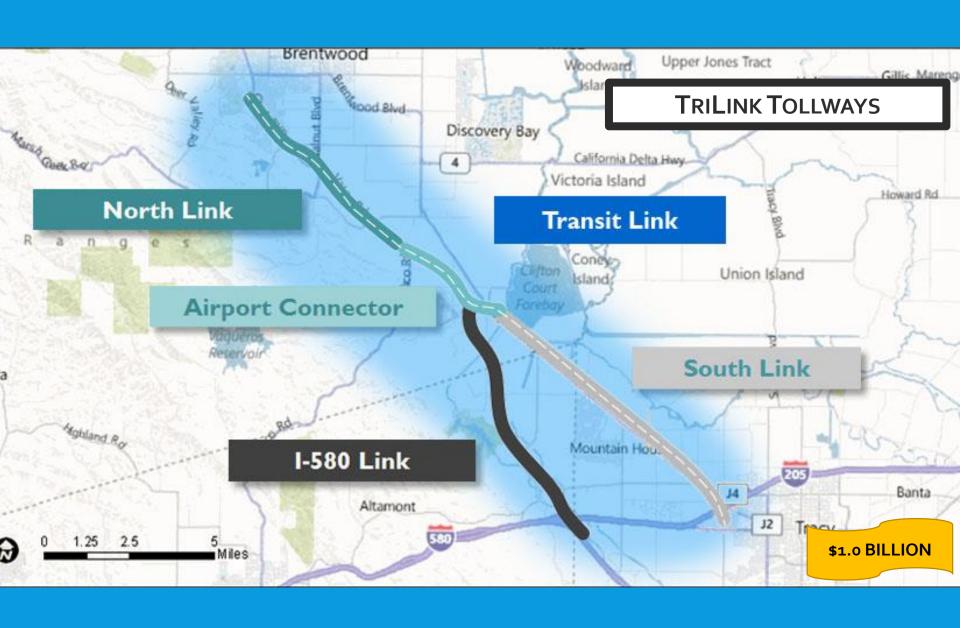


Bike share stations Shuttle routes \$90 MILLION New AC Transit route to Oakland Intermodal Terminal New & expanded Muni routes **Ferry** Building Transbay Transit Center Civic Center **TREASURE ISLAND CONGESTION PRICING** 

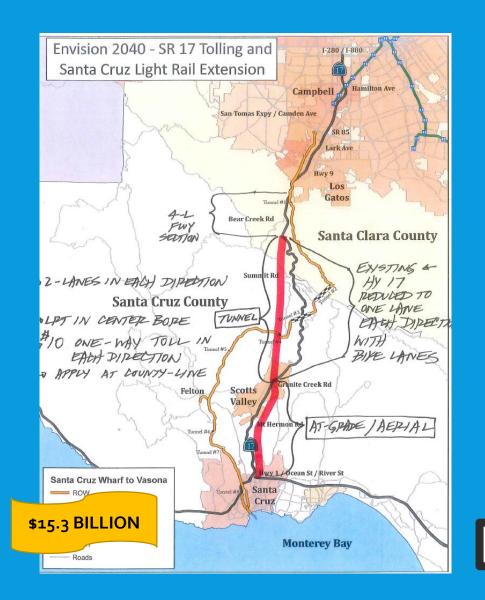
## REGIONAL EXPRESS LANES: CURRENT & FUTURE











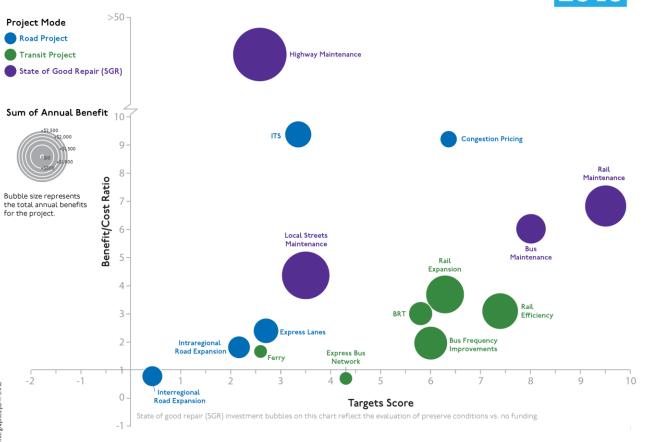


SR-17 TOLLWAY + SANTA CRUZ LRT

#### Plan Bay Area 2040

#### Project Performance Assessment: Overall Results by Project Type



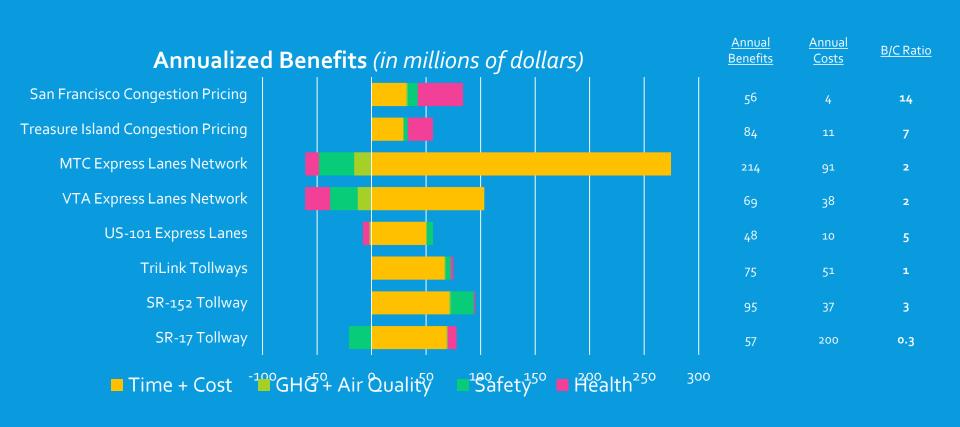








### **BENEFIT-COST BREAKDOWN**

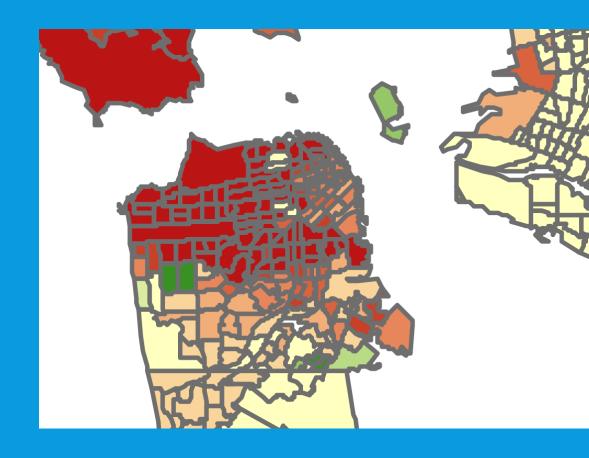


## ACCESSIBILITY MAPPING EXAMPLE: SF CONGESTION PRICING

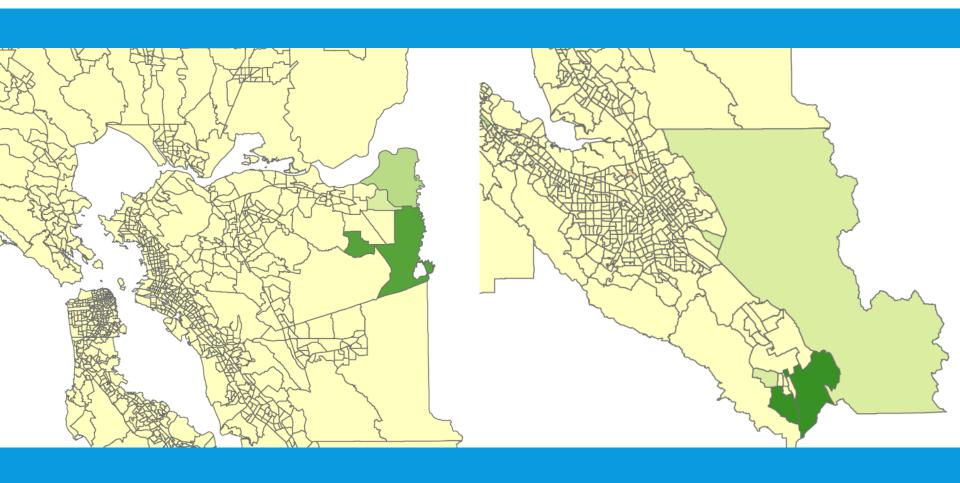
At the same time, we also know that the benefits and burdens of congestion pricing will not be distributed evenly.

While there is a net time + cost savings associated with San Francisco Congestion Pricing, for example, not every neighborhood experiences a net gain in multimodal accessibility.

This map shows accessibility impacts of SF congestion pricing on non-mandatory trips – the impacts are less significant for mandatory trips for which time savings are more valuable.



## OTHER EXAMPLE MAPS: TRILINK & SR-152



## KEYTAKEAWAYS FROM THE ANALYSIS

- Congestion pricing in San Francisco is extremely cost-effective and would help the region meet its ambitious sustainability goals. However, performance analyses also indicate that additional transit investments (beyond those funded by potential revenues) should be considered to improve accessibility more broadly across the city and the region.
- Express lanes result in significant mobility benefits for the Bay Area as a whole. At the same time, added highway capacity may result in induced demand, increasing emissions due to additional single-occupant vehicle travel.
- Proposed interregional tollway projects may break even, but revenues are unlikely to cover costs beyond ongoing maintenance & operations.
   Furthermore, they have the potential to spur additional housing development far from regional job centers, generating additional VMT and GHG.

## WHAT ABOUT A VMT TAX?



## ONE FINAL THOUGHT

Strategic pricing solutions can be much more cost-effective than traditional transportation investments.

However, we also need to keep in mind who benefits and who does not.
Changing the status quo will not be easy.



'Don't worry. There's a bit of a hold-up on the motorway, so I'm building a toll road'

Photo Source: Daily Mai

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