

***PAYING THE FREIGHT: THE CURRENT CRISIS IN
TRANSPORTATION FINANCE AND WHAT TO DO ABOUT
IT***

MARTIN WACHS
PROFESSOR EMERITUS OF URBAN PLANNING UCLA
MAY 15, 2016



SOCIETIES HAVE ALWAYS PAID FOR TRAVEL ON ROADS

- Toll roads have existed for at least the last 2,700 years, tolls were paid by travelers using the Susa-Babylon highway under the regime of Ashurbanipal, who reigned in the 7th century BC.
- Aristotle & Pliny refer to tolls in Arabia and other parts of Asia.
- Toll roads in India before the 4th century BC
- Germanic tribes charged tolls to travelers across mountain passes
- Tolls were used in the Holy Roman Empire in the 14th and 15th centuries.

Borrowing from England

- In US colonies, citizens had to work on roads for certain number of days per year – usually in the spring
- The rich hired people to fulfill their obligation or used their slaves
- Towns eventually voted to tax themselves instead and to hire others to do the work
- Many communities used prisoners on road gangs –



History of Highway Finance



- State highways bankrupting states in 1915-25: fastest growth of autos and roads ever . . . led to innovation of “user fees”
- Fuel Tax Adopted first in Oregon in 1919; California 1923
- Tolls most desirable user fee, in principle
- Motor fuel taxes and various “car taxes” adopted as “second best” but workable

History of Highway Finance

- Motor fuel taxes enormously popular
- Supported by wide variety of constituencies
- Adopted in every state by 1940
- Federal motor fuel tax in thirties
- Fundamental finance mechanism for Interstate System in fifties

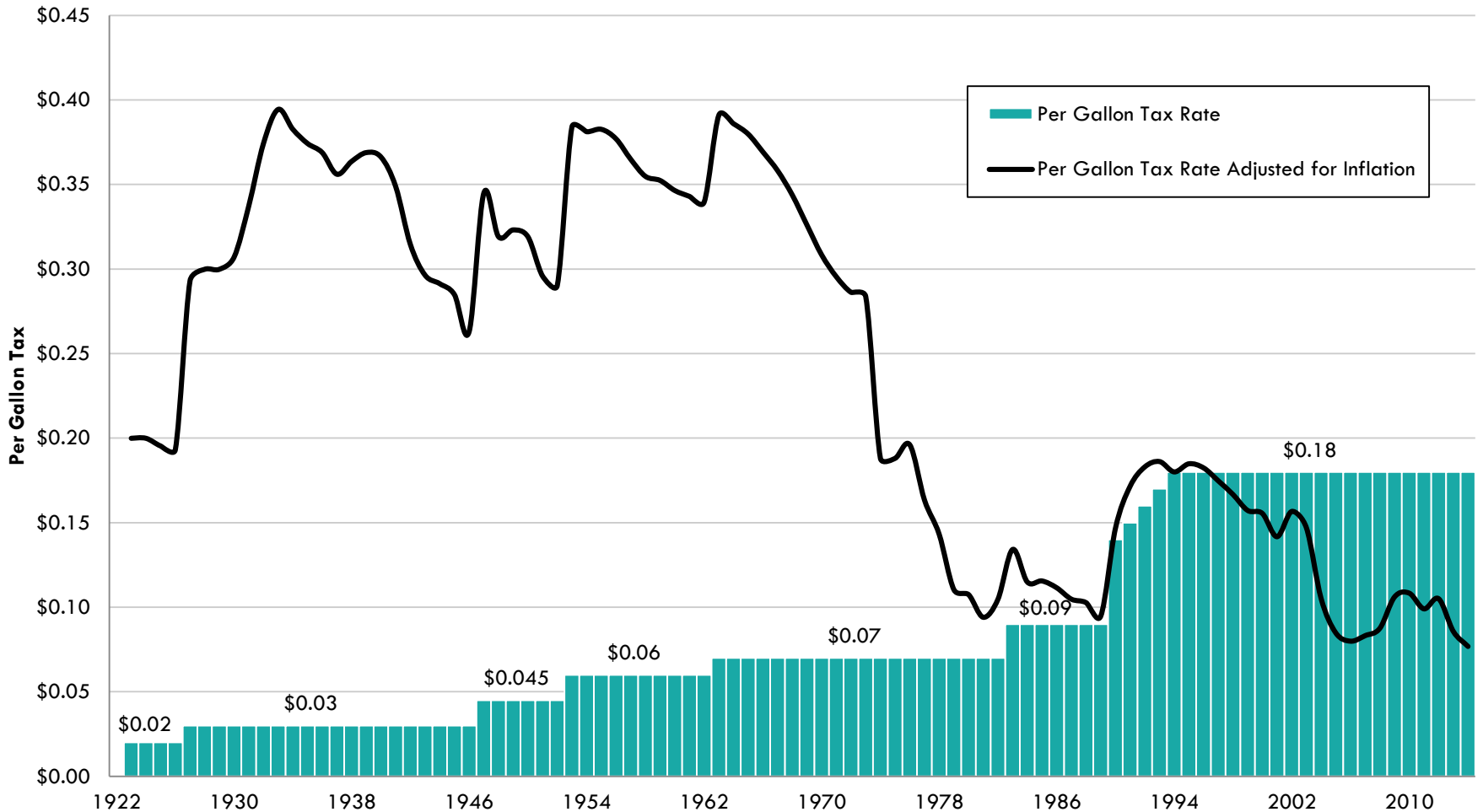


Motor Fuel Taxes

- Traditionally levied on a per gallon basis
- Very low administrative cost – collected at small number of wholesale outlets and passed on to retailers
- Low rate of evasion - - fuel is dyed when tax paid
- Revenue deposited in “trust funds”
 - In principle use restricted to projects that benefit those paying the fees
 - Over time, interpretations of this principle have changed

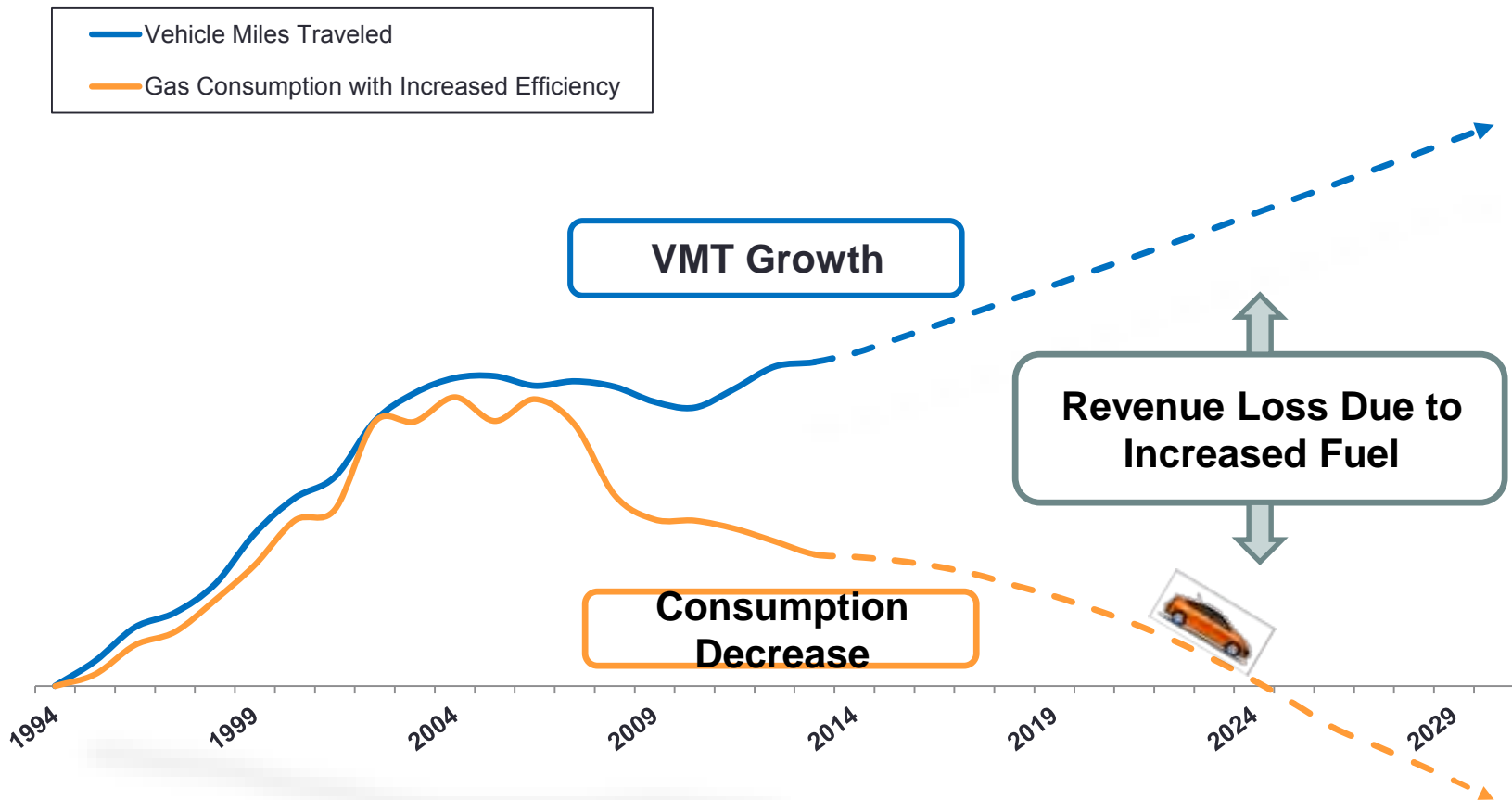
Inflation Erodes Value of Tax Over Time

History of the Base Gasoline Excise Tax Rate



Source: Board of Equalization. Escalation based on California State Highway Construction Cost Index and Consumer Price Index

Fuel Efficiency Contributes to Revenue Loss



In this conceptual chart, Vehicle Miles Travelled and Fuel Consumption have been indexed to the same starting point in 1994 to enable comparison of the relative change of the two metrics over time

We are Responding in Three Ways

- Devolution and Local Option Taxes
- More Toll Lanes and “HOT” Lanes
- Possible Replacement of Gas Taxes by Direct “Road User Charges”



Transportation Ballot Measures

- 2015 34 Measures in 10 States
 - 24 passed 10 failed 70%
- 2014 61 Measures in 18 States
 - 42 passed 19 failed 69%
- 2013 15 Measures in 8 States
 - 11 passed 4 failed 73%
- 2112 62 Measures in 17 States
 - 49 passed 13 failed 79%



Los Angeles County has **THREE** half cent sales taxes for transportation

- Requires Two-Thirds Supermajority in California
- Project Lists
- Local Administration
- Can Borrow against Future Tax Revenue

- **Will have another measure on the November ballot**

HOT (High Occupancy/Toll) lanes are a Promising Innovation

- Add new lanes to existing freeways & charge to use new capacity: allow single occupancy drivers to pay tolls while carpools are free
 - Tolls vary with demand to keep lanes free-flowing
 - Transit can also use express lanes
- Experience to date – 15 projects in service; 18 being planned
- Los Angeles, San Diego, Houston, Denver, Minneapolis, Toronto all successful
 - Reduce delay, increase reliability
 - Viewed as providing additional travel choices



California Road Charge Pilot Program

- Senate Bill 1077 (2014)
- Directed the California Transportation Commission (CTC) to establish a Technical Advisory Committee (TAC)
- TAC provided report recommendations to the California State Transportation Agency (CalSTA)
- Requires CalSTA to implement a pilot program by ~~January 2017~~ **July 2016**
- Requires a report of findings and recommendations by ~~June 2018~~ **July 2017**

Public Input Drives TAC Process

- Extensive Public Outreach Efforts
- TAC Pilot Design Recommendation
 - 5,000 participants statewide
 - Diversity in vehicle types
 - Commercial and State account managers
 - Multiple mileage reporting methods
 - Protect privacy
 - Ensure data security
 - Independent evaluation





Key Concerns Raised by the Public

- Privacy and Data Security
- Urban vs. Rural Differential Impacts
- Income Equity Implications
- Fleet Parity
- Rate Setting



Mileage Reporting Methods

Operational Concepts

Corresponding Technology

Concept 1: Time Permit → Time Permit Technology

Concept 2: Mileage Permit → Mileage Permit Technology

Concept 3: Odometer Charge → Odometer Technology
(post-pay)

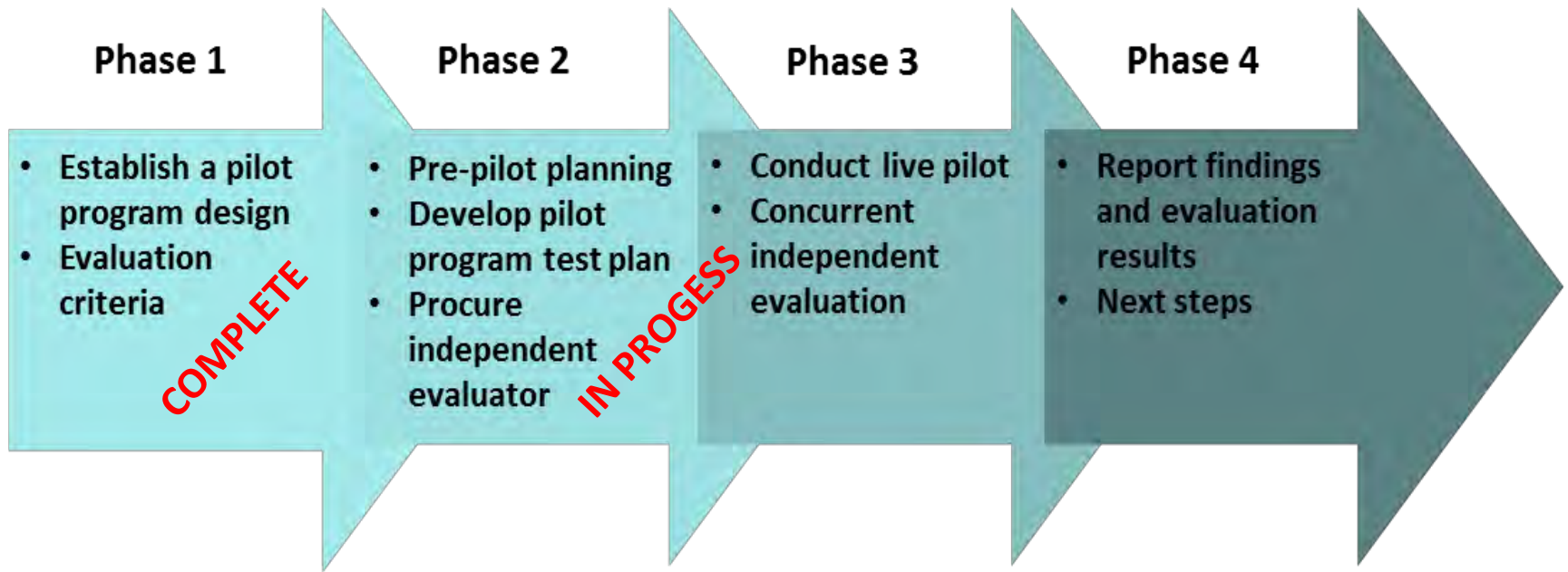
Concept 4: Automated Mileage Reporting with No Location Data

Concept 5: Automated Mileage Reporting with General Location

Usage-based Insurance Devices
Smartphone

In-Vehicle Telematics
Other Location-based Devices

Road Charge Pilot Program Status



Phase 1: Pilot Design/Public Outreach - December 2015 **COMPLETE**

Phase 2: Recruitment/Procurement & Testing - Summer 2016 **IN PROGRESS**

Phase 3: Live Pilot – Summer 2016 - Spring 2017

Phase 4: Final Report – Summer 2017

Help Represent Your Community!

- At Close of Business on May 6th, there were 8,365 volunteers; Please join up



User Fees Gaining Interest

- Western Road Usage Charge Consortium
 - 14 Western States
 - State Transportation Organizations
 - Research and Exploration of Road Charge Concept
- FAST Act
 - Section 6020 - Surface Transportation System Funding Alternatives
 - \$95 million Over Five Years



What are the chances of

- Increasing Motor Fuel Taxes
- Introducing more HOT Lanes and Congestion Pricing
- Accepting more Sales Taxes, Property Taxes
- Shifting Toward Direct Fees for Road Use



Thank You

