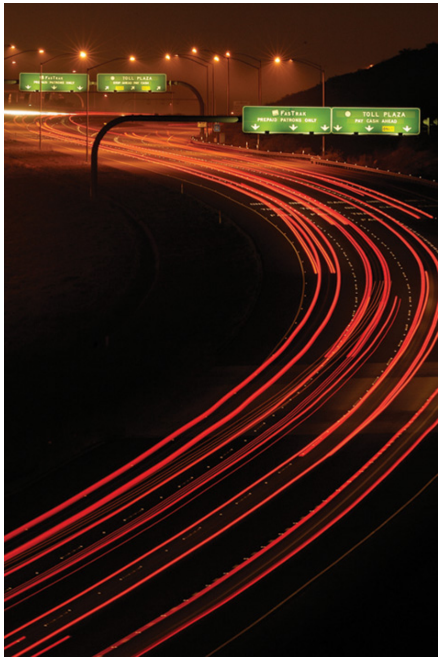
San Joaquin Hills Toll Corridor

Steven Abendschein, PE

January 31, 2012



One Team. Infinite Solutions

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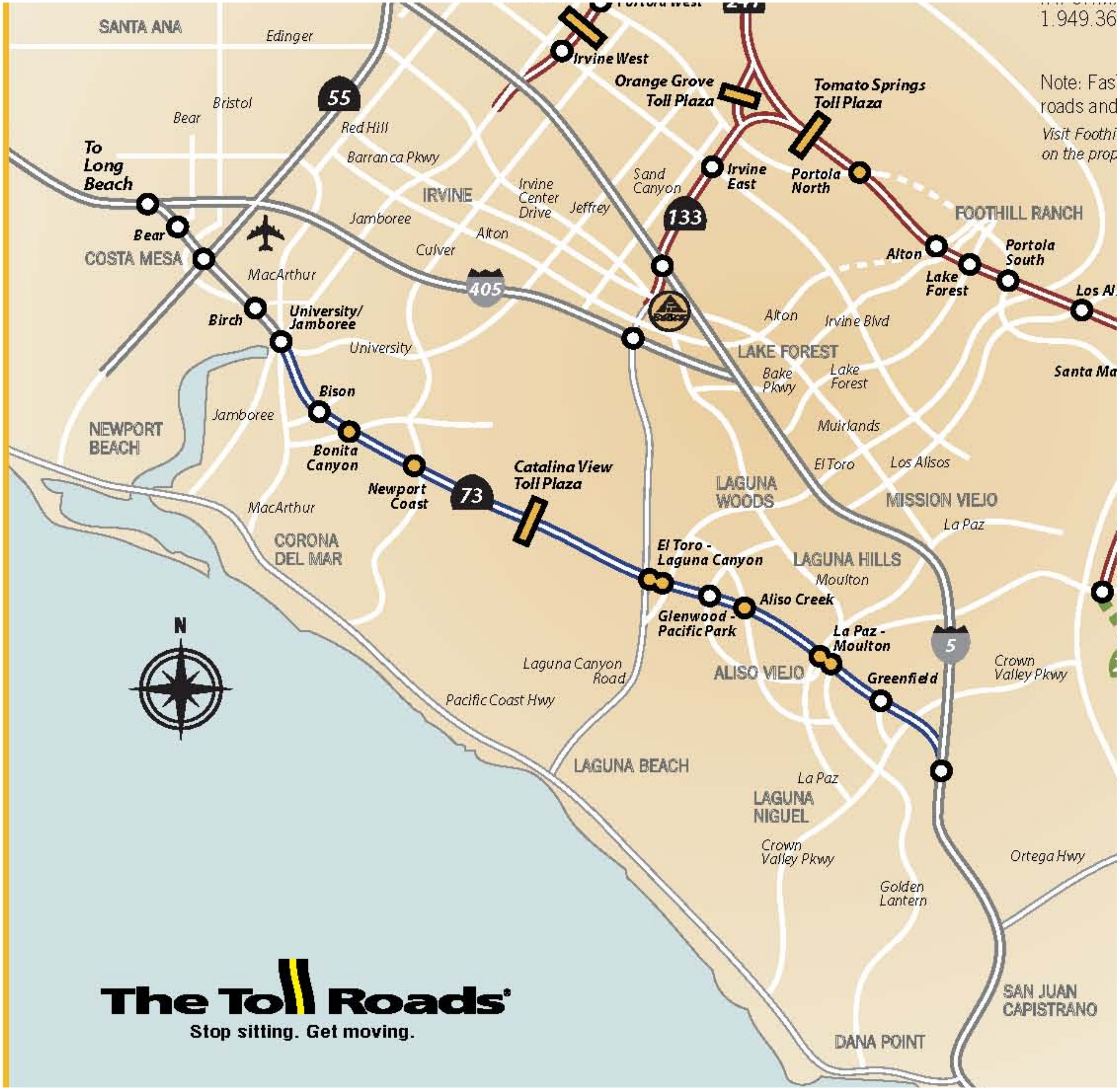

SANTA ANA
Edinger
Irvine West
Orange Grove Toll Plaza
Tomato Springs Toll Plaza
Bristol
Bear
55
Red Hill
Barranca Pkwy
To Long Beach
IRVINE
Irvine Center Drive
Jeffrey
Sand Canyon
Irvine East
Portola North
133
FOOTHILL RANCH
Jamboree
Alton
Bear
COSTA MESA
Culver
MacArthur
405
Alton
Lake Forest
Portola South
Birch
University/ Jamboree
University
Alton
Irvine Blvd
LAKE FOREST
Bake Pkwy
Lake Forest
Bison
Jamboree
Muirlands
NEWPORT BEACH
Bonita Canyon
El Toro
Los Alisos
Newport Coast
73
Catalina View Toll Plaza
LAGUNA WOODS
MISSION VIEJO
MacArthur
La Paz
CORONA DEL MAR
El Toro - Laguna Canyon
LAGUNA HILLS
Moulton
Aliso Creek
Glenwood - Pacific Park
La Paz - Moulton
N
5
Laguna Canyon Road
ALISO VIEJO
Crown Valley Pkwy
Greenfield
Pacific Coast Hwy
LAGUNA BEACH
La Paz
LAGUNA NIGUEL
Crown Valley Pkwy
Ortega Hwy
Golden Lantern
SAN JUAN CAPISTRANO
DANA POINT
The Toll Roads
Stop sitting. Get moving.

Overview

- Driver Response to Toll Increases
  - TCA Facilities
  - Other Facilities
- Application of Toll Elasticity Theory
  - Optimal Toll
  - Toll Rate Multiples
- The Role of Economics
  - National Indices
  - Regional Indices
  - Forecasts

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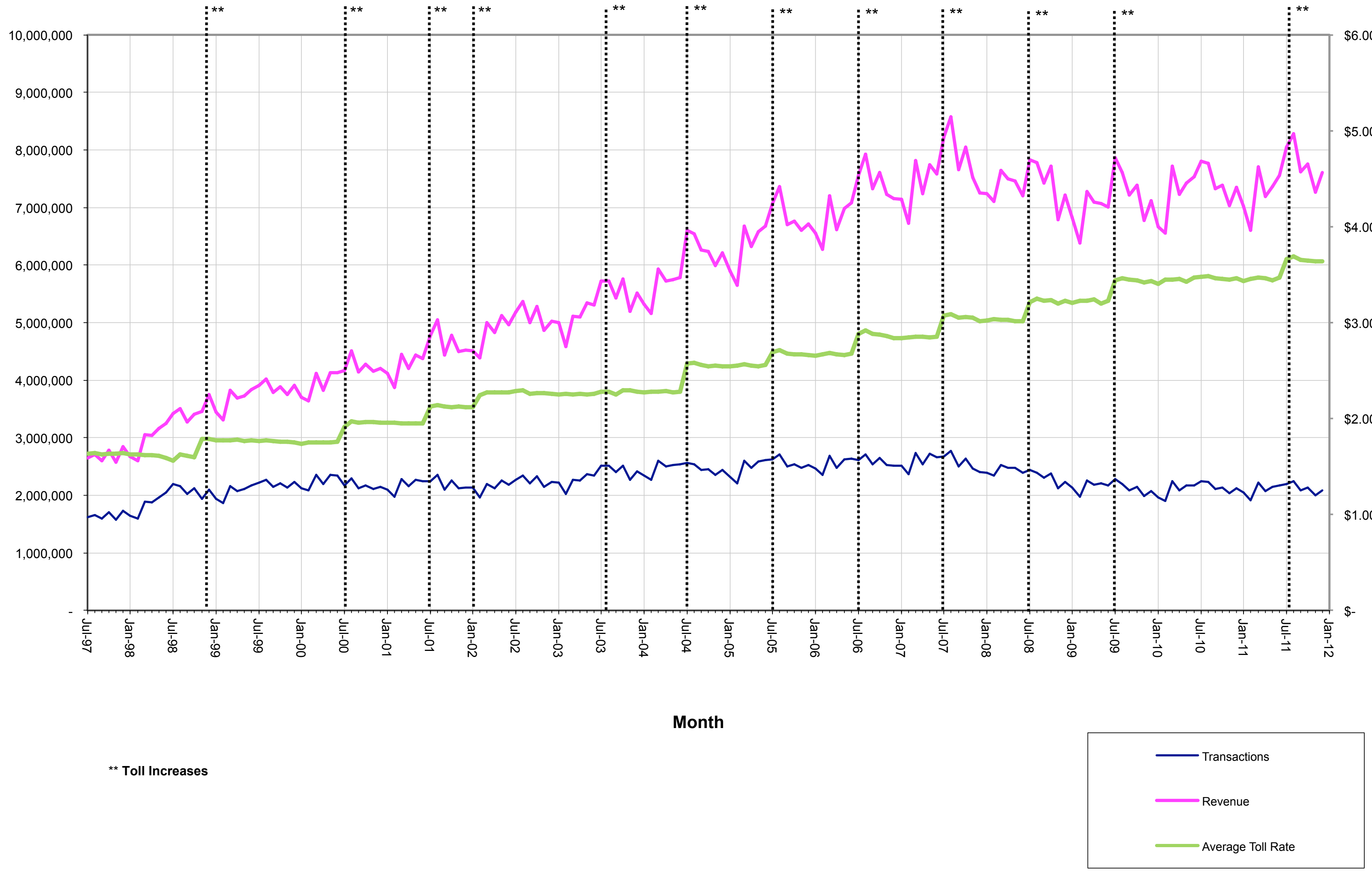
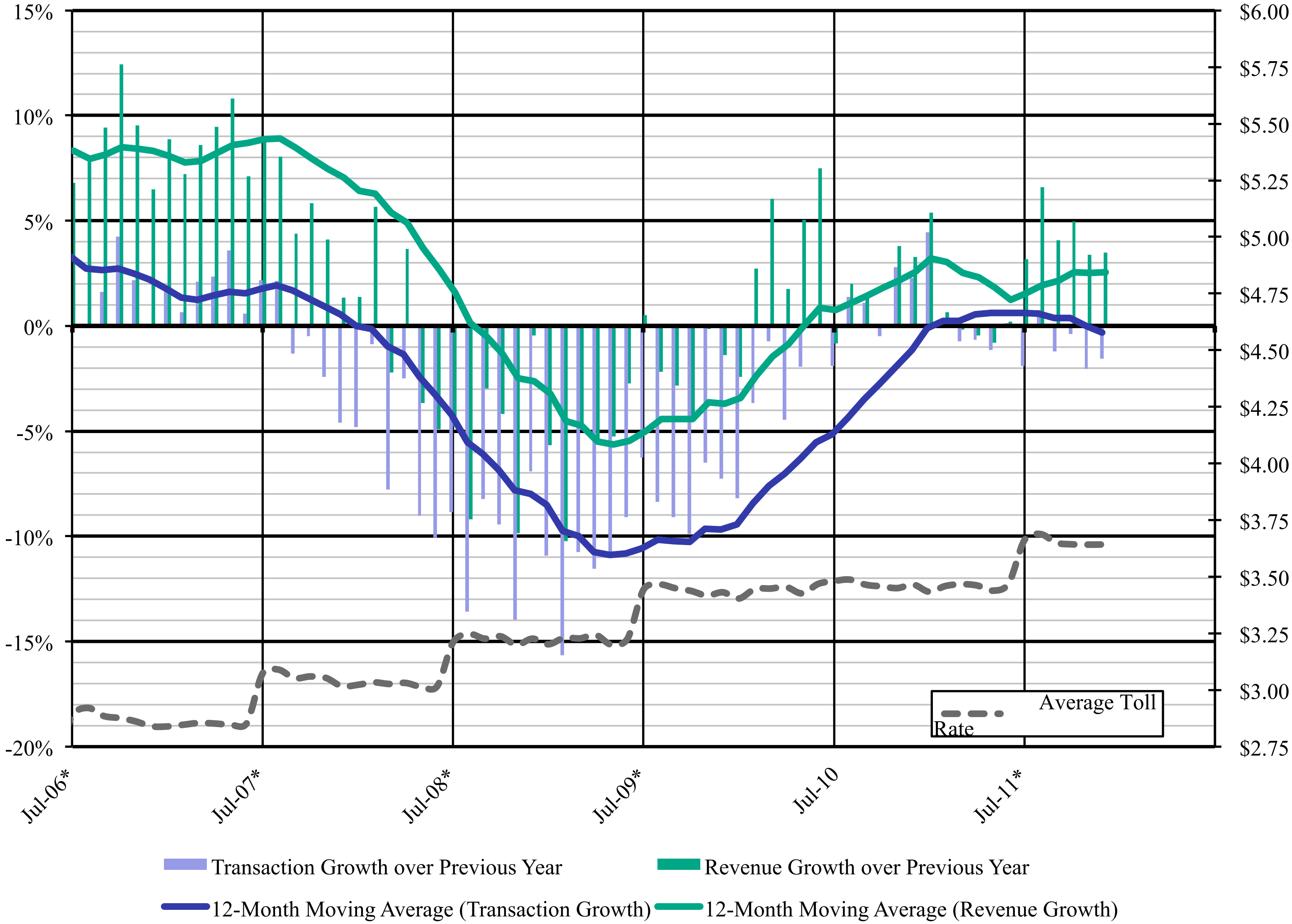
Driver Response to Toll Increases

San Joaquin Hills Monthly Transactions & Revenue



Driver Response to Toll Increases

San Joaquin Hills Year over Year Transaction and Revenue Growth



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Driver Response to Toll Increases

San Joaquin Hills Transactions and Revenue

	July 1, 2011 Toll Increase													
	Mainline		Ramps											
	Catalina View		La Paz		Aliso Creek		El Toro		Newport Coast		Bonita Canyon		All Ramps	
Toll	*From*	*To*	*From*	*To*	*From*	*To*	*From*	*To*	*From*	*To*	*From*	*To*	-	-
Peak AVI	$ 4.75	$ 5.00	$ 1.25	$ 1.30	$ 1.50	$ 1.60	$ 2.00	$ 2.10	$ 1.75	$ 1.85	$ 0.75	$ 0.80	-	-
Peak Cash	$ 5.50	$ 5.75	$ 1.50	$ 1.75	$ 1.75	$ 2.00	$ 2.25	$ 2.50	$ 2.00	$ 2.25	$ 1.00	$ 1.25	-	-
Off-Peak AVI	$ 4.00	$ 4.20	$ 1.25	$ 1.30	$ 1.50	$ 1.60	$ 2.00	$ 2.10	$ 1.75	$ 1.85	$ 0.75	$ 0.80	-	-
Off-Peak Cash	$ 4.75	$ 5.00	$ 1.50	$ 1.75	$ 1.75	$ 2.00	$ 2.25	$ 2.50	$ 2.00	$ 2.25	$ 1.00	$ 1.25	-	-
Weekend AVI	$ 3.75	$ 3.95	$ 1.25	$ 1.30	$ 1.50	$ 1.60	$ 2.00	$ 2.10	$ 1.75	$ 1.85	$ 0.75	$ 0.80	-	-
Weekend Cash	$ 4.50	$ 4.75	$ 1.50	$ 1.75	$ 1.75	$ 2.00	$ 2.25	$ 2.50	$ 2.00	$ 2.25	$ 1.00	$ 1.25	-	-
	Transactions (Weeks 1-24)													
FY	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	'11	'12
Total	8,049,724	8,003,861	274,919	252,235	706,351	723,573	969,490	958,964	1,199,281	1,194,204	594,710	576,376	3,744,751	3,705,352
	Percent Change in Transactions													
Total	-1%		-8%		2%		-1%		0%		-3%		-1%	
	Revenues (Weeks 1-24 in 000s)													
FY	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*	*'11*	*'12*
Total	$ 69,690	$ 72,851	$ 709.25	$ 689.64	$2,165.02	$2,384.31	$3,937.16	$4,118.91	$4,294.53	$4,568.53	$ 946.91	$1,007.48	$ 12,052.86	$ 12,768.87
	Percent Change in Revenues													
Total	5%		-3%		10%		5%		6%		6%		6%	

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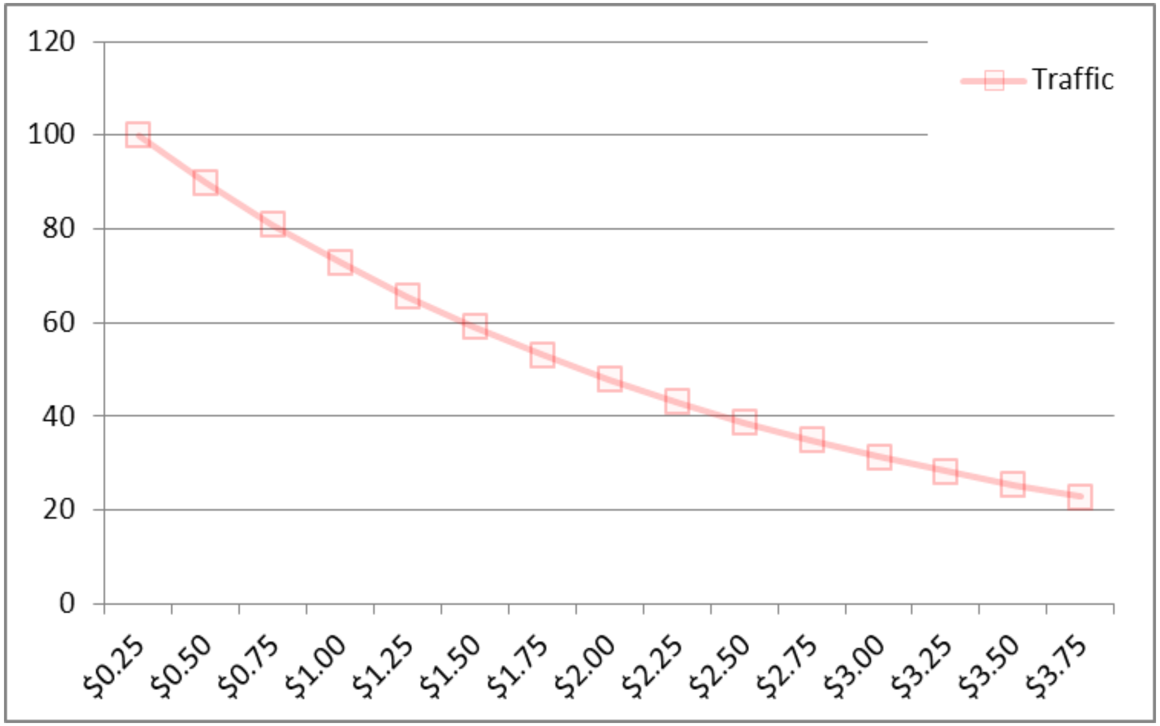
Toll Elasticity

Building the Optimal Revenue Curve

- As toll rates increase, traffic declines.
- The rate of decline is the **elasticity** of traffic



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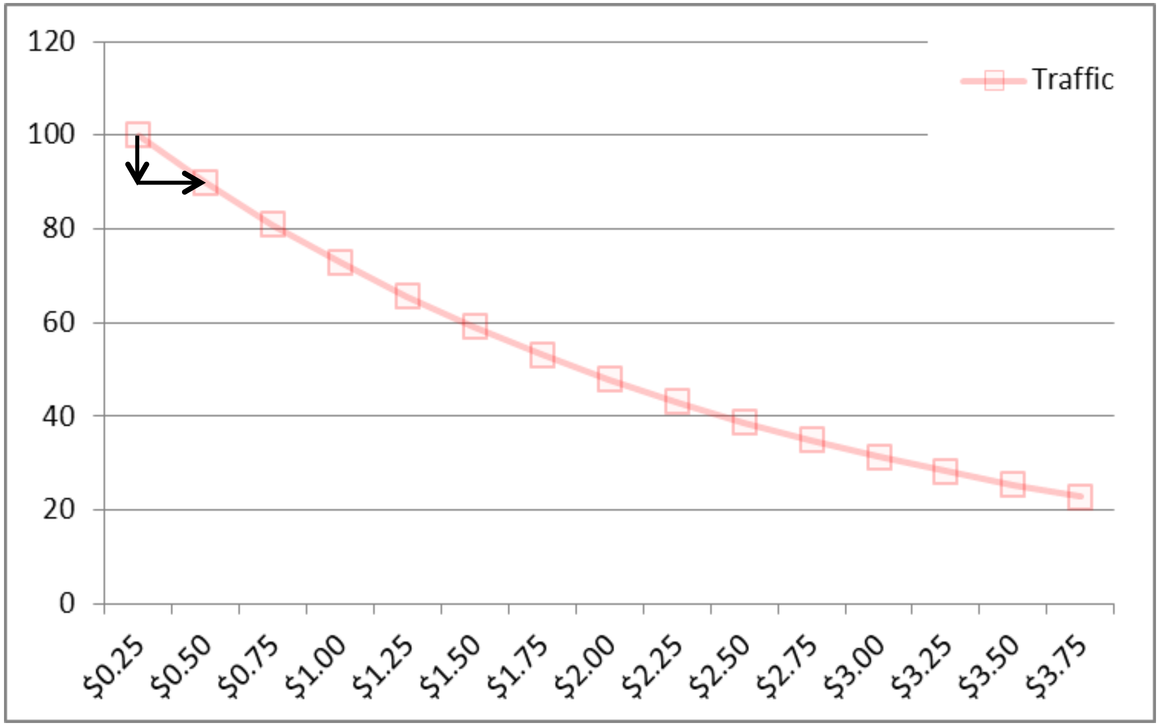
Toll Elasticity
Building the Optimal Revenue Curve

- Example
  - Toll Increase from $0.25 to $0.50
  - Traffic declines 10%



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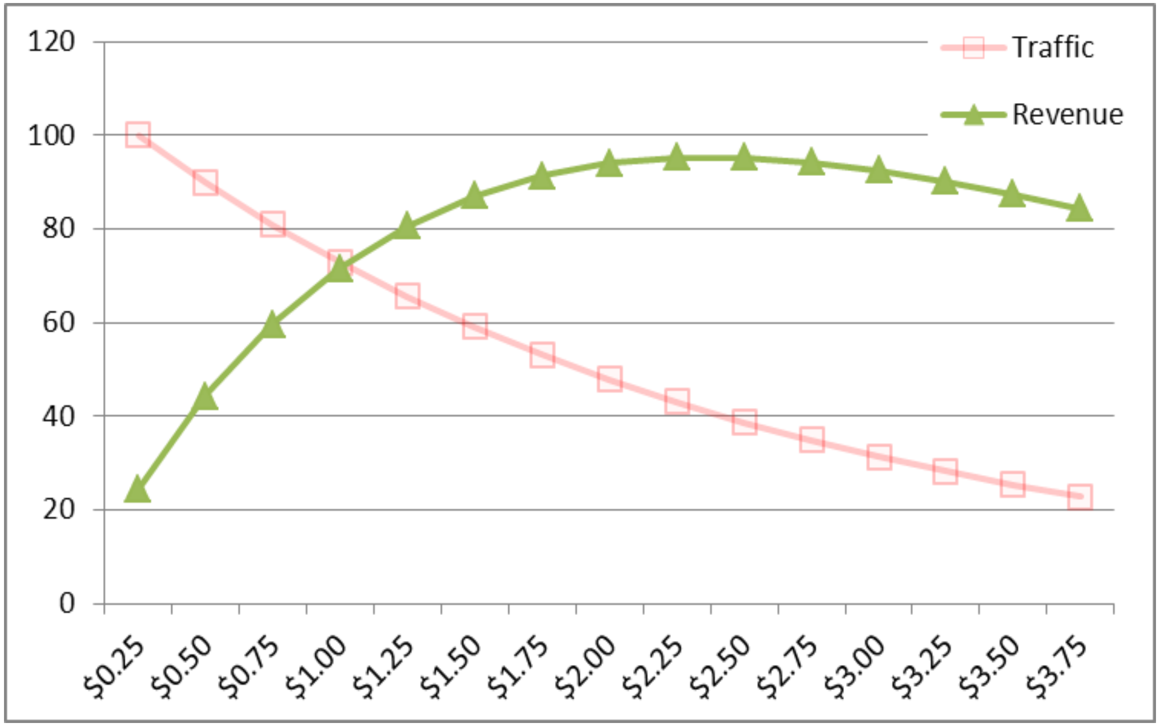
Toll Elasticity

Building the Optimal Revenue Curve

- Traffic times Toll Rate Equals Revenue
- Examples
  - $ .25 * 100 = $25
  - $1.00 * 72 = $72
  - $2.00 * 46 = $92



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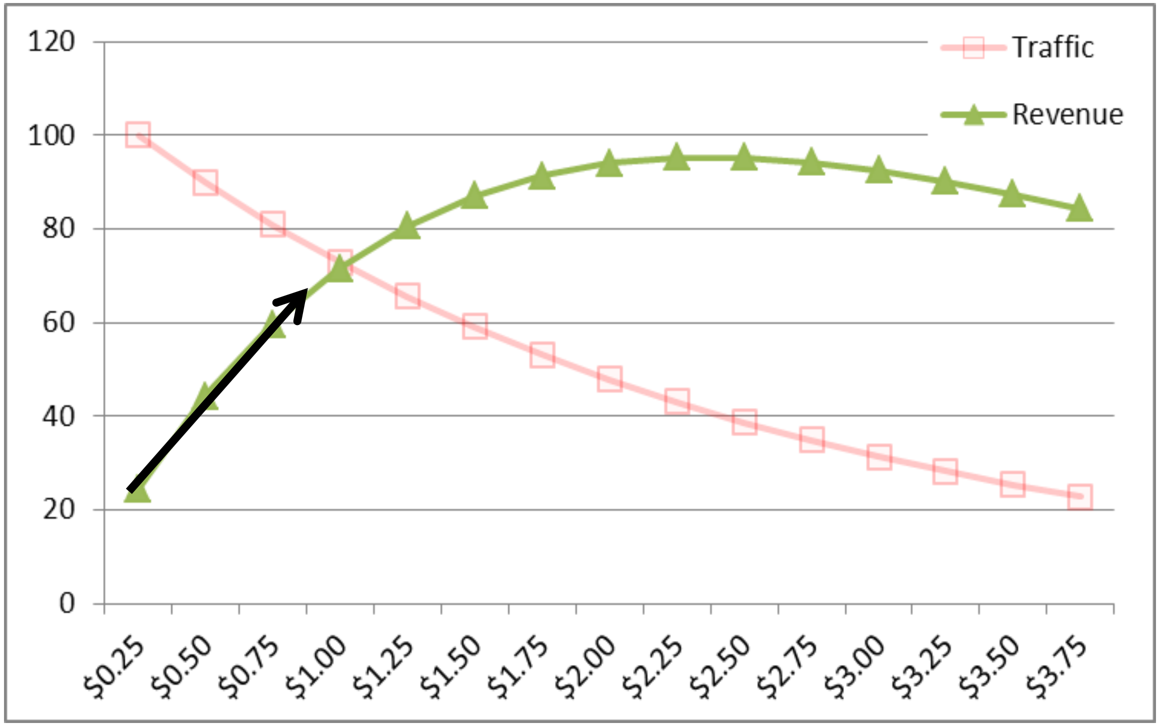
Toll Elasticity

Building the Optimal Revenue Curve

- At the low end of the revenue curve, revenue increases almost linearly with toll increases.



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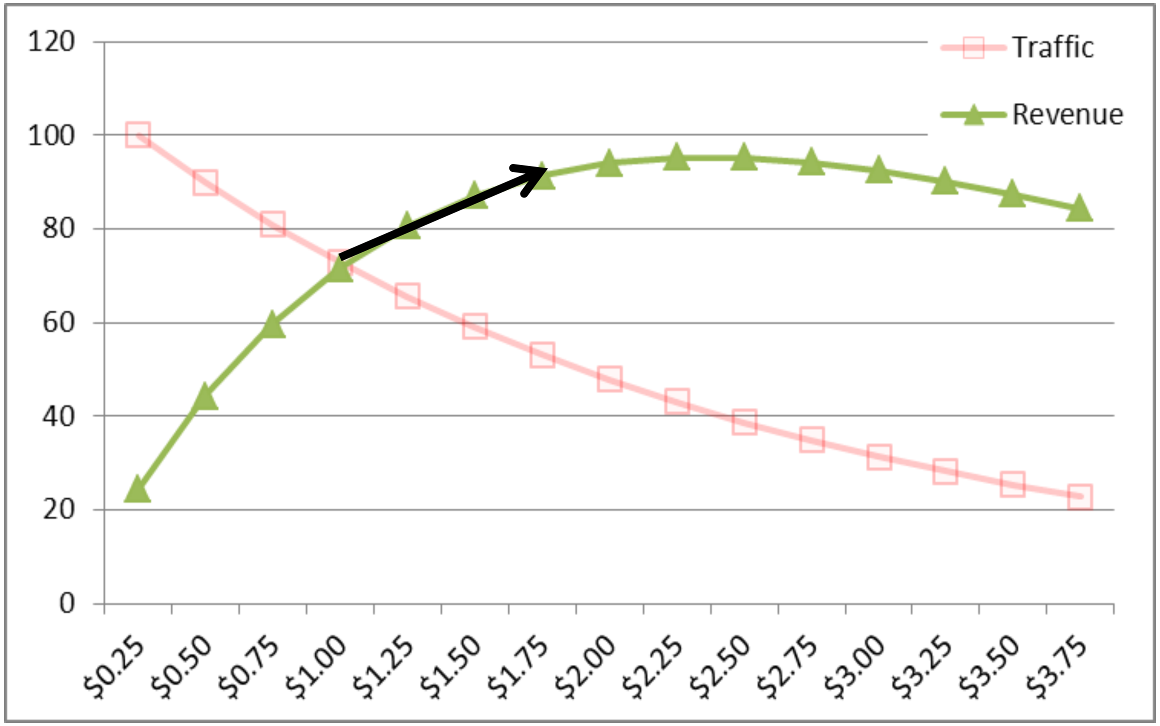
Toll Elasticity
Building the Optimal Revenue Curve

- As toll rates increase, revenue increases slow and the revenue curve begins to flatten.



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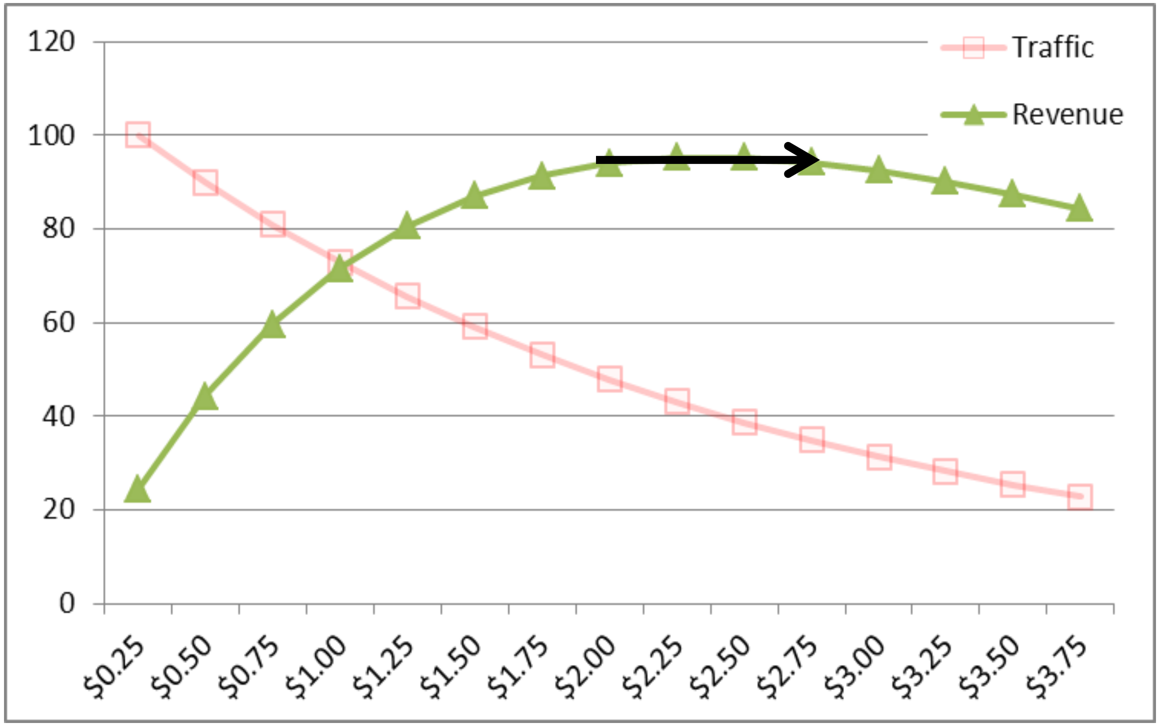
Toll Elasticity

Building the Optimal Revenue Curve

- As toll rates approach optimal, revenue increases are nearly zero and the revenue curve is nearly flat.



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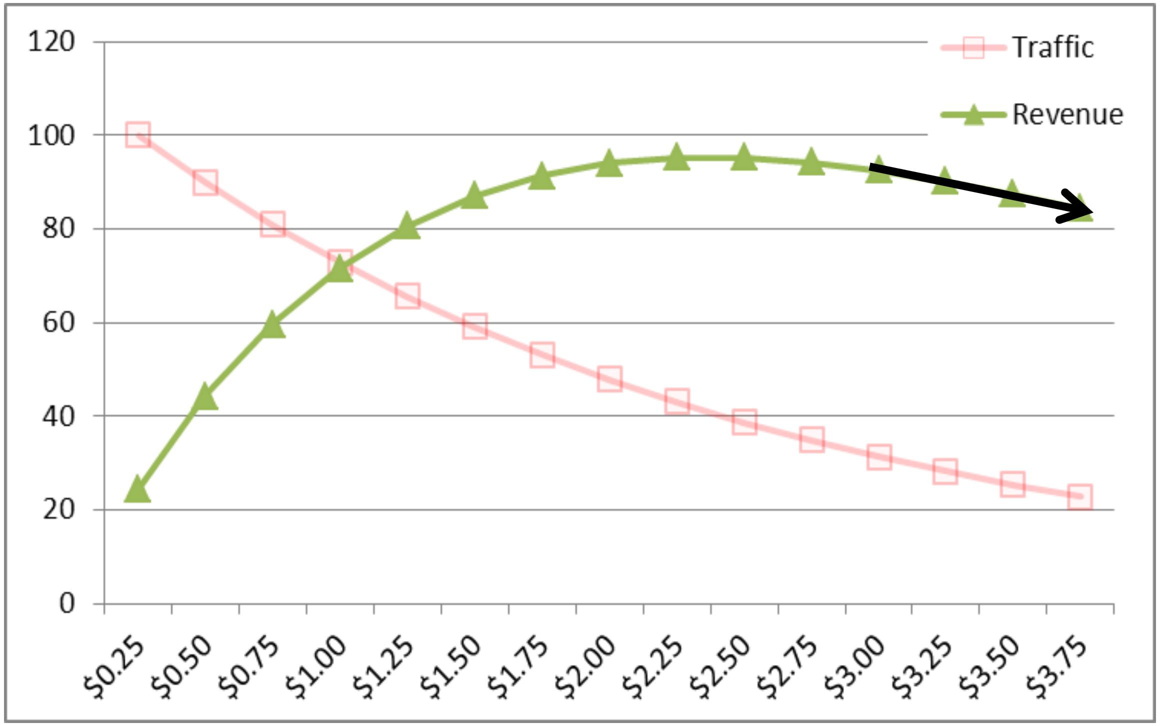
Toll Elasticity

Building the Optimal Revenue Curve

- As toll rates surpass optimal, revenue declines and the revenue curve turns downward.



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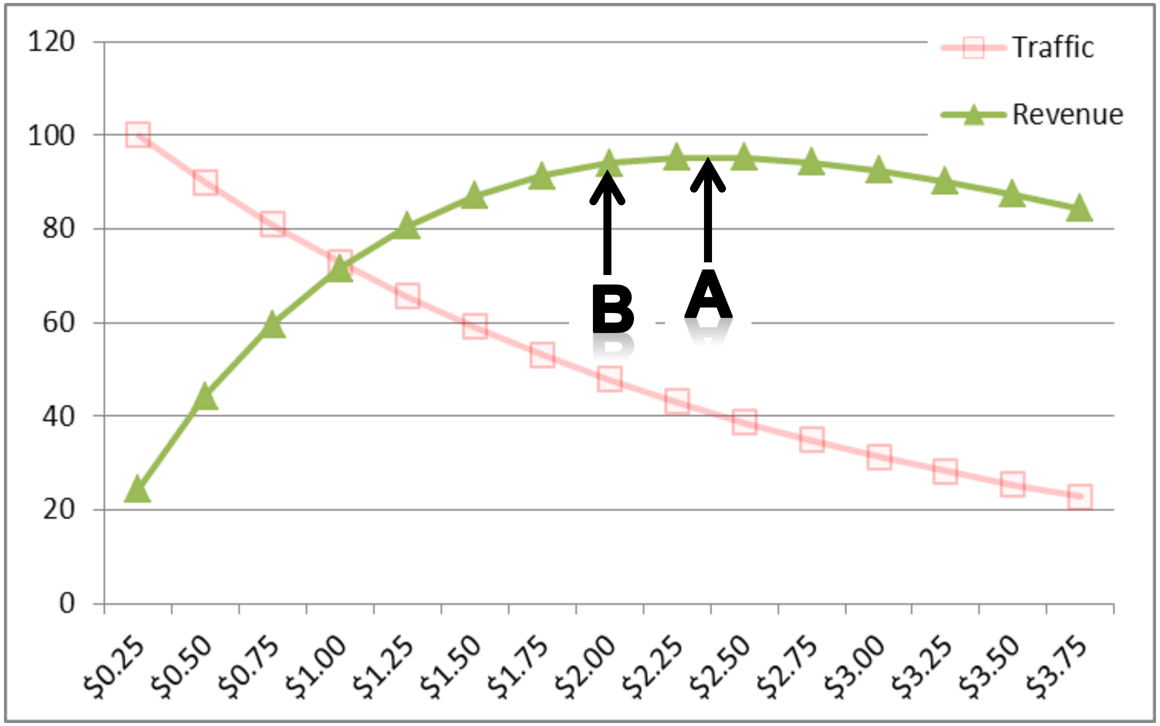
Toll Elasticity

Building the Optimal Revenue Curve

- Where is the optimal point?
  - A: Optimal Revenue
  - B: Optimal Toll



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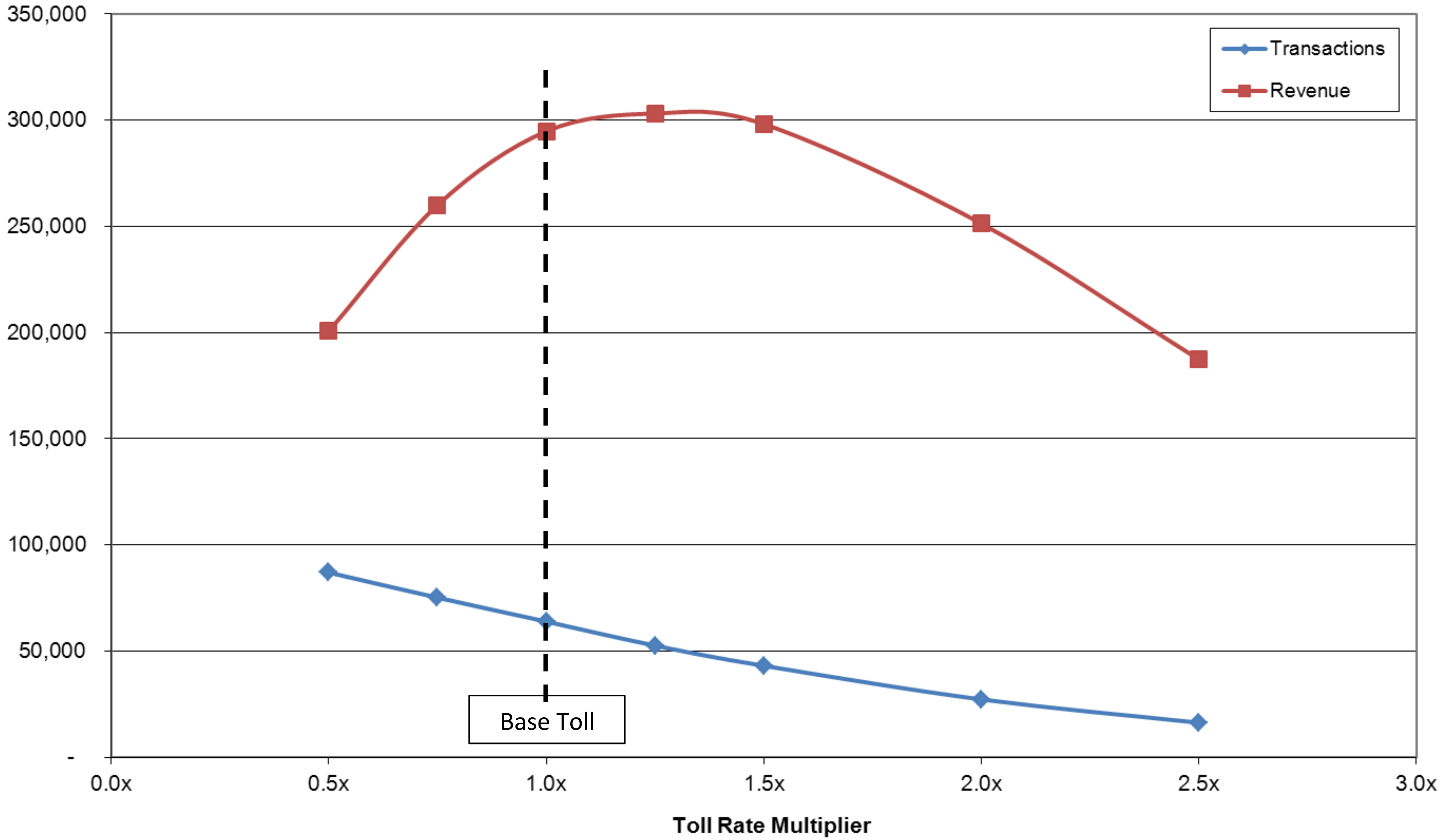
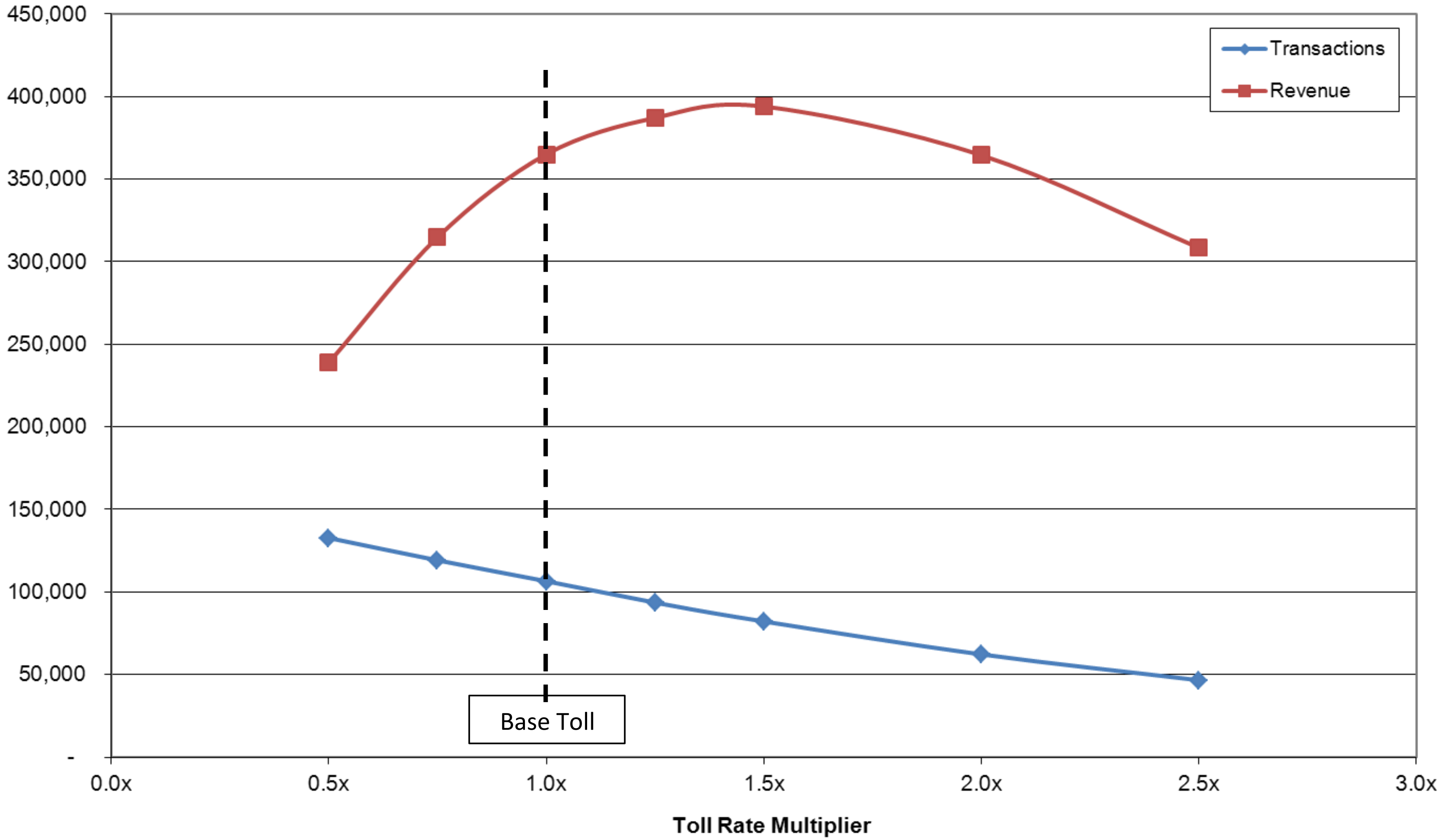
Toll Elasticity
Catalina View Mainline Toll Plaza – Average Weekday



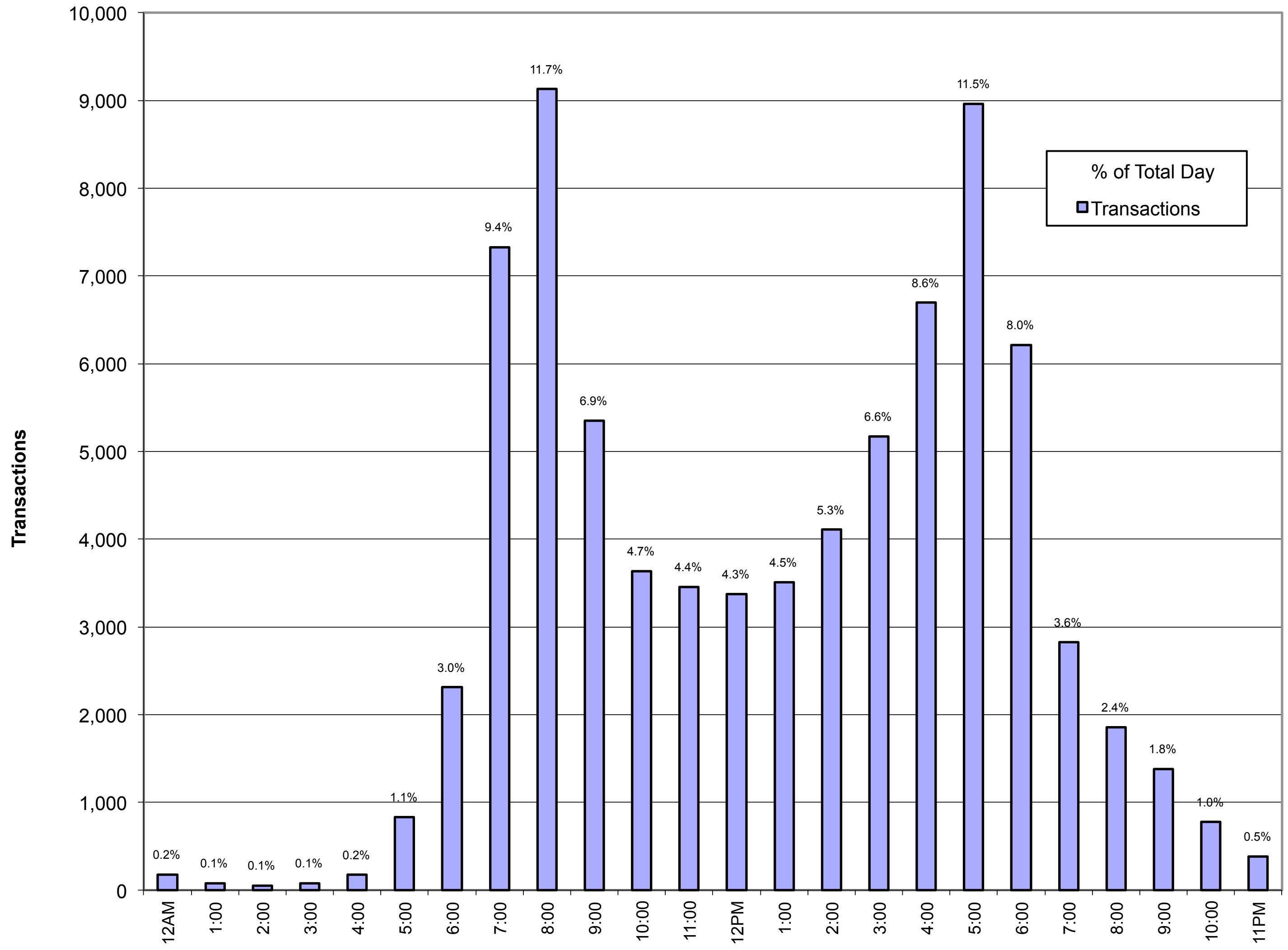
Toll Elasticity

San Joaquin Hills Toll Corridor – Average Weekday



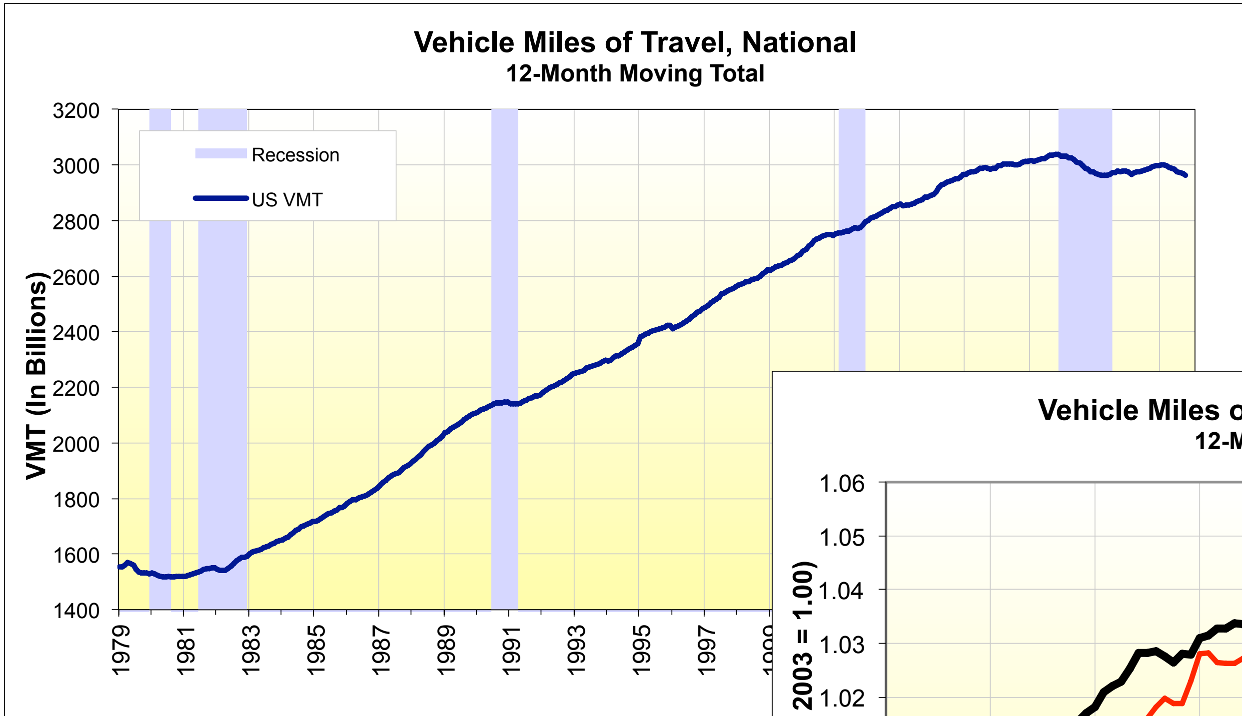
Travel Demand

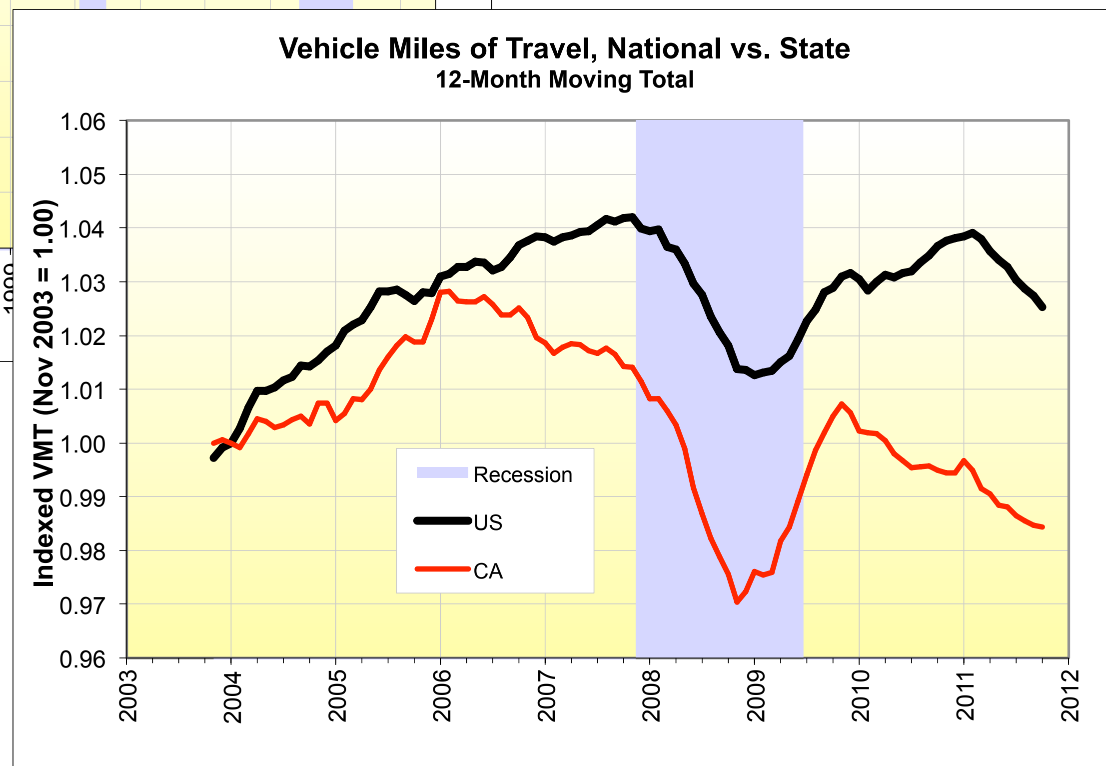
San Joaquin Hills Corridor Transactions – October 19, 2011



The Role of Economics

Nationwide Vehicle Miles of Travel (VMT)





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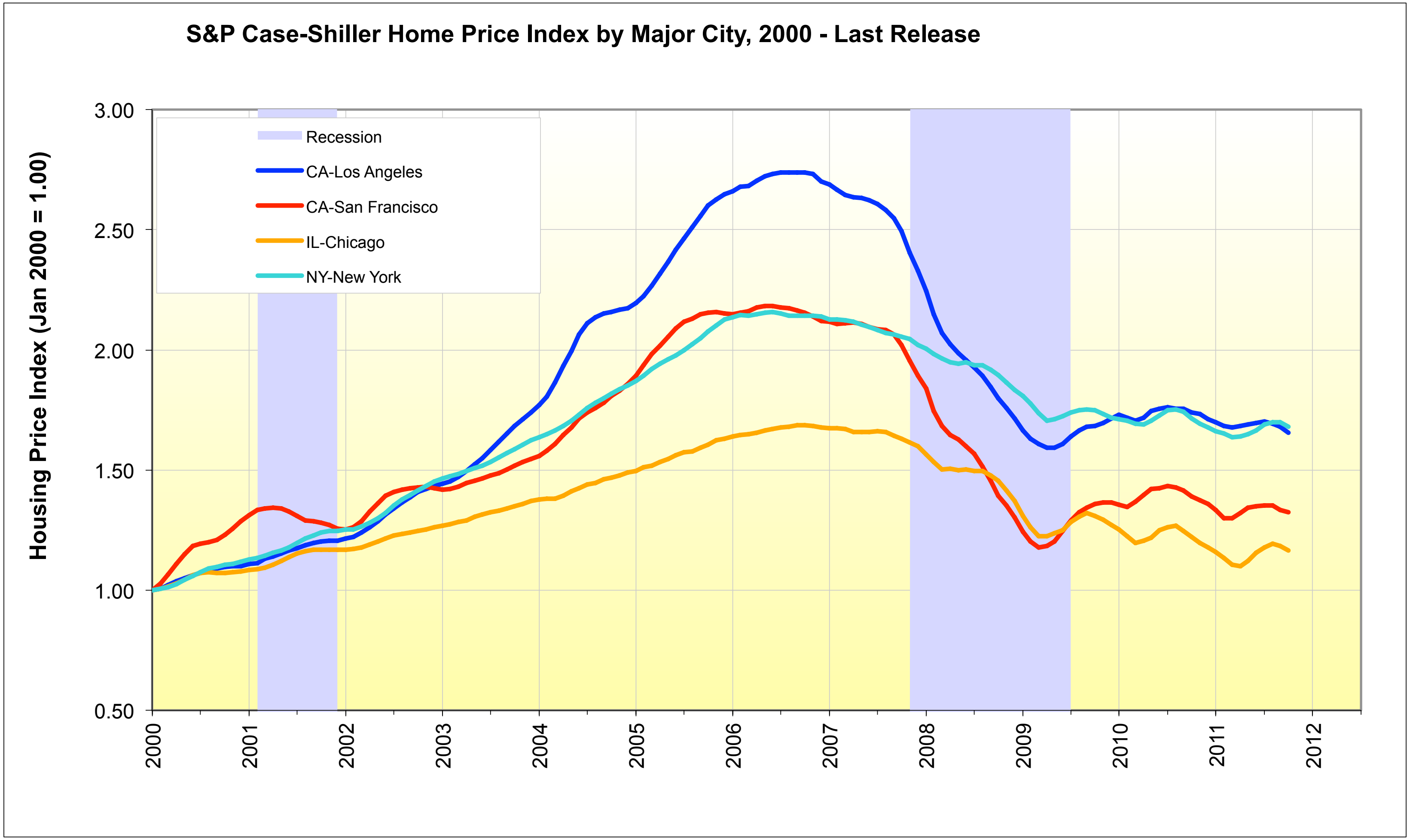
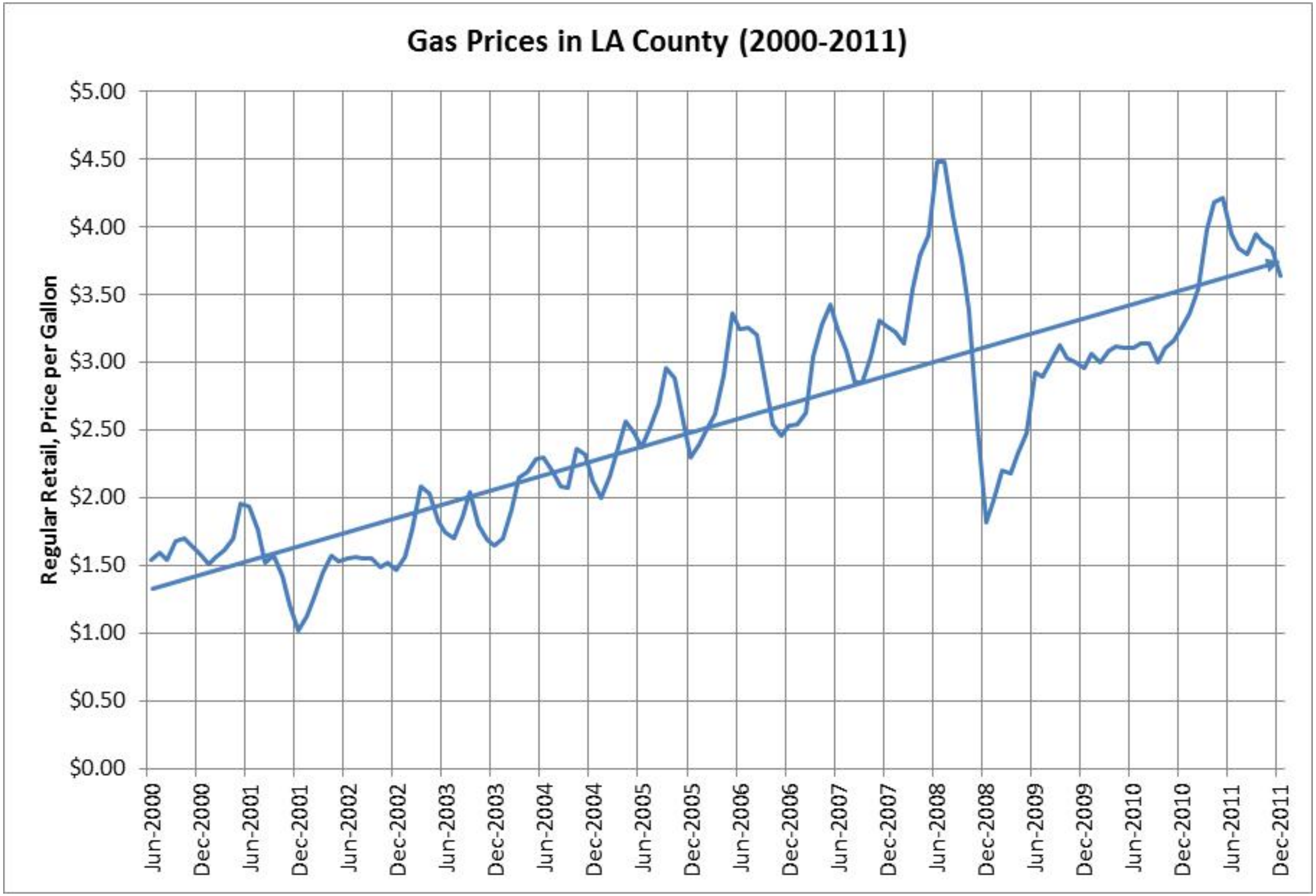
The Role of Economics
Local Housing Market



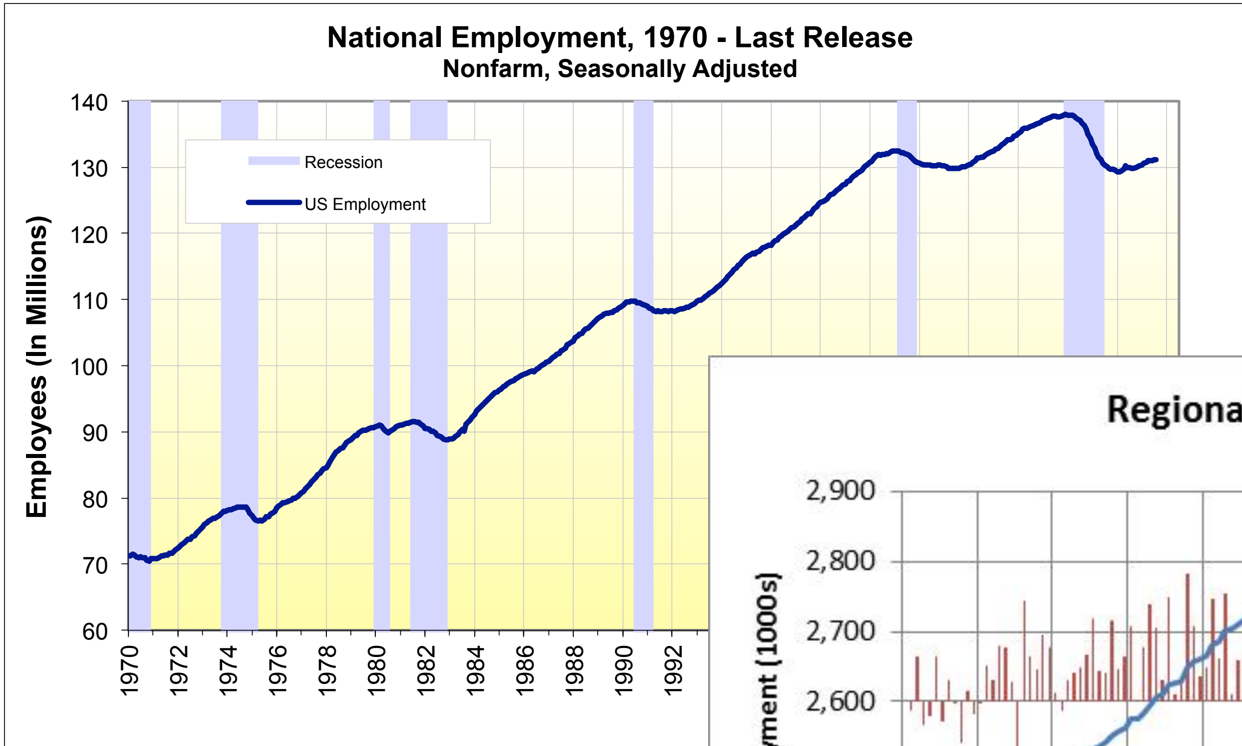
The Role of Economics

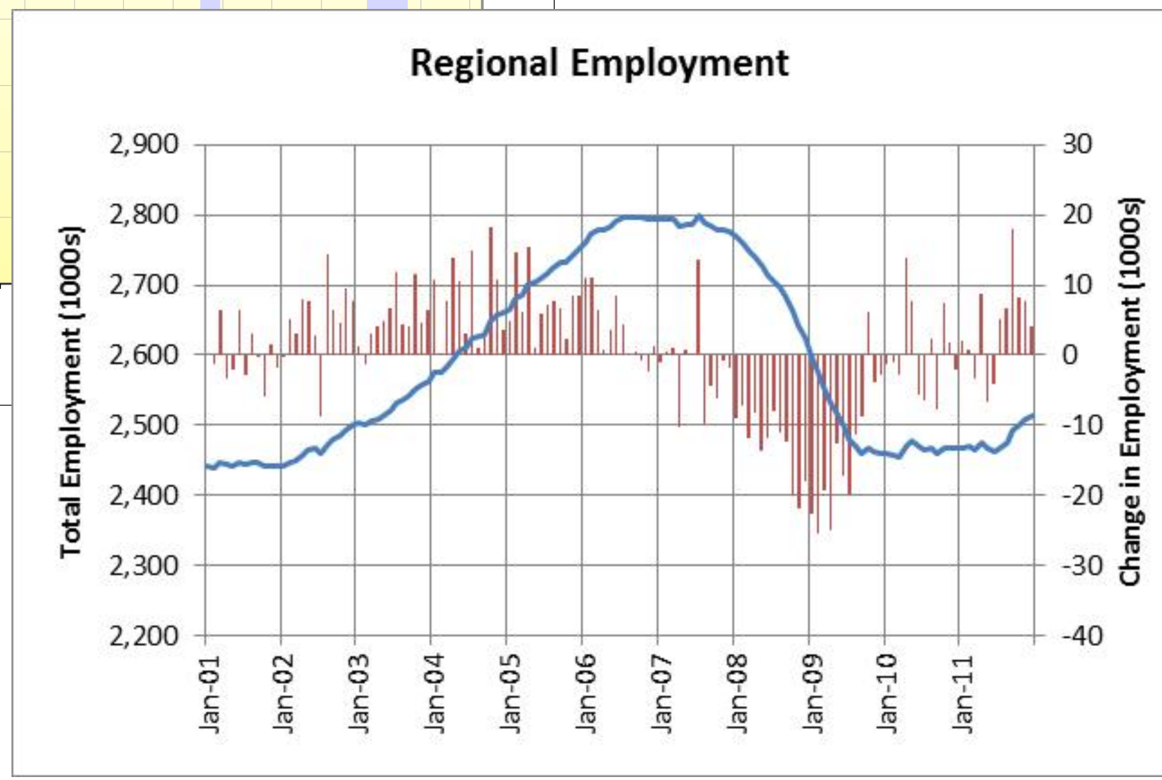
Gas Prices



The Role of Economics

National and Local Employment





Observations

- Recent Toll Increases have been Revenue Positive
- Traffic volumes elastic to Price increases
- Toll rates below Revenue Maximum point
- Recent economic conditions impacting toll road usage
- Economic recovery could spur toll road growth