The Value of Tolling: One State's Perspective

# Connecticut Department of Transportation

Commissioner Joseph Giulietti

## CT's new toll system will be All-Electronic Tolls (AET)

# CT removed tolls in 1985 for good reasons.

#### Persistent problems with old system

- Traffic backups
- Frequent accidents
- Air quality problems
- Asbestos from brake liners

#### Final straw:

 Tractor trailer crash that killed 7 people in cars stopped at toll booth



## All Electronic Tolling (AET) eliminates earlier problems

- No toll plazas
  - No stopping
  - No delays
  - No accidents
- Toll gantries 'over' the road
- <u>No cash</u> payments
- E-ZPass transponders
  - Typically 70-90% of all transactions
  - Mass Pike: 86% (still increasing)
- Non-E-ZPass vehicles tolled with video imaging



#### AET also makes administration & mgmt. easier

- Can manage complex toll rate & discount structures easily
- Eliminates cash payments with video tolling
- Well suited to congestion pricing with peak period pricing options
- Automated & detailed accounting of transactions, trips, and revenues



## Interstate financial exchanges easy with E-ZPass system

If CT adopts tolling, we would join the E-ZPass partnership



#### Partnership of 14 states

- Mostly widely electronic system on east coast
- All revenue exchanges done nightly with detailed accounting and reporting



### **Components of Gantries or Roadside Systems**



## **Gantry Locations:** CT's challenge is too many exits



- <u>Mass Pike</u>: **130 miles & 21 exits** 
  - **13 gantries**: 1 between each exit with 3 exceptions
    - Springfield, Worcester, Boston

#### <u>I-95 NY to New Haven</u>: 47 miles & 47 exits

- Not practical or necessary for CT to put a gantry between each exit
- Seek an **optimum balance** between <u>too many</u> gantries & <u>too few</u>
- <u>Result</u>: Baseline scenario : **6-mile spacing** on average
  - Average trip length is **11.7 miles**

## **Gantry Locations:** cost to drivers



How does gantry spacing affect cost to drivers?

- It doesn't: cost is same regardless of # of gantries
- Closer spacing simply means a lower toll at each gantry
- Gantry charge based on **miles driven** between gantries
  - Example: gantries spaced 6 miles apart
    - assume toll rate of <u>5 cents</u> per mile
    - gantry charge = 5 cents/mile X <u>6 miles</u> = 30 cents
  - If you drive 50 miles you will pay \$2.50 regardless of whether there are 5 gantries or 10 gantries

#### **Processing Data from Gantries** (Back Office functions)

