The Toll Road Not Taken

Carlos Sun
University of Missouri

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Some background about myself

- In transportation engineering since 1990
- Licensed professional engineer
- Licensed attorney
- Used to pay $2.00 in tolls every weekday to cross the Delaware River (now $5.00)
Differing Perceptions of Toll Roads

- Raise your hand if you love toll roads
Outline

Today, we will examine ...

Reasons behind toll road attitudes
- Crisis!
- Modern history of roads
  - 34th President, Ike
- Trade-offs of toll financing
- Future of road financing
TRANSPORTATION FINANCING CRISIS?
Crisis! Equation

increasing transportation demand
+ 
increasing construction costs
+ 
increasing construction costs
+ 
decreasing funding
=
infrastructure crisis!
Crisis! Equation Illustrated

\[ \text{Traffic} + \text{Economic Growth} + \text{Unemployment} = \text{Crisis} \]
Increasing Transportation Demand

FHWA, 2008
Construction Cost Index (ENR)
Transportation Financing Levels

NSTIF, 2009
Gas Tax Level

Federal Gasoline Tax Rates, 1933-2012
Nominal Dollars (not adjusted for inflation)

taxfoundation.org
Crisis!
A HISTORICAL JOURNEY
Turnpikes

- What is a turnpike?
- What is the origin of the word?
Turnpikes

- A gate
- What is shunpiking?
Nineteenth Century

- Northeast 73% of turnpikes
- Midwest: MO, IL, MI, IA
- 1806-1838 1st federal interstate, tolled
  - Cumberland Rd/National Pike – MD to IL
- Highly regulated
  - Fixed tolls; church & town meeting exemption
- Enormous economic impact
Toll Roads and Free Roads

- Commissioned by Congress in 1938
- Influential in advocating for HTF
- Federal-Aid Highway Act (& Revenue Act)
1939 BPR Report

- How to finance 6 intercontinental highways
  - 3 E-W
  - 3 N-S
1939 Report – Toll Estimates

- 1945-1960: estimated vehicle paying traffic
  - 699 autos and 175 trucks per day
- Average toll rates of 1 cents per vehicle-mile for passenger cars
- Total toll $72M/year
- Total cost $184M
- 39.2% solvency ratio
1939 Report – Toll Estimates

- Light transcontinental travel
- Trip lengths < 5 miles 25%-44%
- Median length 6.3 – 8.9 miles
- Distances shorter than toll-highway access points
Comments on 1939 Report

- BPR’s opposition differed from modern
  - Pragmatic approach
- Travel demand post 1960
  - 1960-1990 commuting increased by 136%
  - Ownership tripled to 153M
- Household income from 1967 to 2008
- Select data from states
- Capacity: 520 vph vs. >2200 vph
Highway Act of 1956

- Previously
  - federal excise taxes on motor fuel & vehicles into general fund
  - appropriations for federal aid
- Highway Trust Fund model
- 90% federal share / 10% state
- 1st section in ...
Highway Act of 1956

- Post WWII - autobahns
- Establish 42k miles quickly
  - Not long term solution
- Not intended to restrict state flexibility
- National System of Interstate and **Defense** Highways
Highway Act Competing Interests

- Special Assistant for Public Works Planning General Bragdon
- Treasury Secretary George Humphrey
- Truckers
- Al Gore Sr., Fallon, Boggs - Senate & House
1959 Political Climate

- Receipts of trust fund were expected to exceed expenditures by nearly $7.7 billion
- Optimistic revenue outlook for trust fund as formulated using “free” roads model
1956 Highway Act
Limitations on Federal-Aid Funds

- Beginning of exclusion of new toll facilities on IS
- Turnpikes in existence, include into Interstate System
  - e.g. KS, MA, NJ, PA
- Act meant to promote uniformity
  - bifurcating states into toll and non-toll
TRADE-OFFS OF TOLL FINANCING
Collection Costs

- Gas tax collection – low cost
  - 1% of revenue

- Tolling more costly
  - New tech allows collection at speed
  - 6-15 cent/transaction operational cost

Worrall, 2009
Local Benefit

- Gas tax – in-state fees vs in-state travel
- Tolling – capture out-of-state travelers
  - e.g. I-70
  - But merely shifting and not augmenting?
Link Between Charges and Use

- Gas tax – loosely tied, fuel efficiency differences
  - 18-kip ESALS
- Registration and licensing – not directly tied to miles traveled
- Tolls – direct link
Highway Subsidies

- Revenue generated through fuel taxes not cover full cost of transportation
  - bonding, sales tax, property tax, income tax, incident management, externalities
- Subsidies do not promote economic efficiency (tragedy of the commons)
- Tolling could include more impact
  - congestion pricing
A Double Whammy?

- Tolling amount to paying twice?
  - fees and gas taxes already paid
- Revenues go to finance same benefit?
  - e.g. TCA fuel for maintenance, tolls to fund operating and bond interest
Roads Should be Free

- There ain't no such thing as a free lunch
  - Free roads = misnomer
- Confusion between constitutional right to move freely between states or visit another state

humanresourcelegislation, 2014
Equality

- Affordability?
  - Exclusion of lower income travelers
- Related housing issue
- Hybrid vehicles
Other Alternatives?
VMT Fee System

- Direct user fee based on miles driven
- Best option identified by congressional commission
- User connects cost with service provided
- User miles and locations (jurisdictions) tracked via GPS
Other Alternatives?

- Bonds
- General sales tax, excise tax increase, increase user fees
- Property tax
- Development exactions and impact fees
- Transportation development districts
What is a Good Question

- Are you for toll roads or against them?
More Information on Legal Aspect of Toll Roads

- The Toll Road Not Taken: Could the One Option Less Used Make A Difference?
- Kansas Journal of Law & Public Policy