Who Should Pay for Highway Externalities—and How?

Robert W. Poole, Jr.

Director of Transportation Policy

Reason Foundation

www.reason.org/transportation

Reason

Overview of presentation

- What is an externality?
- Ways of dealing with externalities
- Government vs. road-owner roles
- Different approaches for different externalities

Definition of "externality"

- An uncompensated impact (cost or benefit) accruing to a third party as the unintended consequence of an action.
- Thus, there are positive as well as negative externalities.
- This discussion concerns only negative externalities.
- Highways do provide many positive externalities, even to those who never drive (paramedics, Fedex deliveries, etc.)

There are various ways to deal with negative externalities.

- Mandated technology (scrubbers on smoke stacks, catalytic converters on cars);
- Regulation of inputs (55 mph speed limit);
- Regulation of outcomes (Corporate Average Fuel Economy standards);
- Externality tax (e.g., carbon tax).

Possible negative externalities of highways

- Air pollution—conventional emissions
- Greenhouse gases (GHGs)
- Oil dependence?
- Noise
- Run-off of polluted water
- Congestion?
- Accidents?

Which party should address which highway externalities?

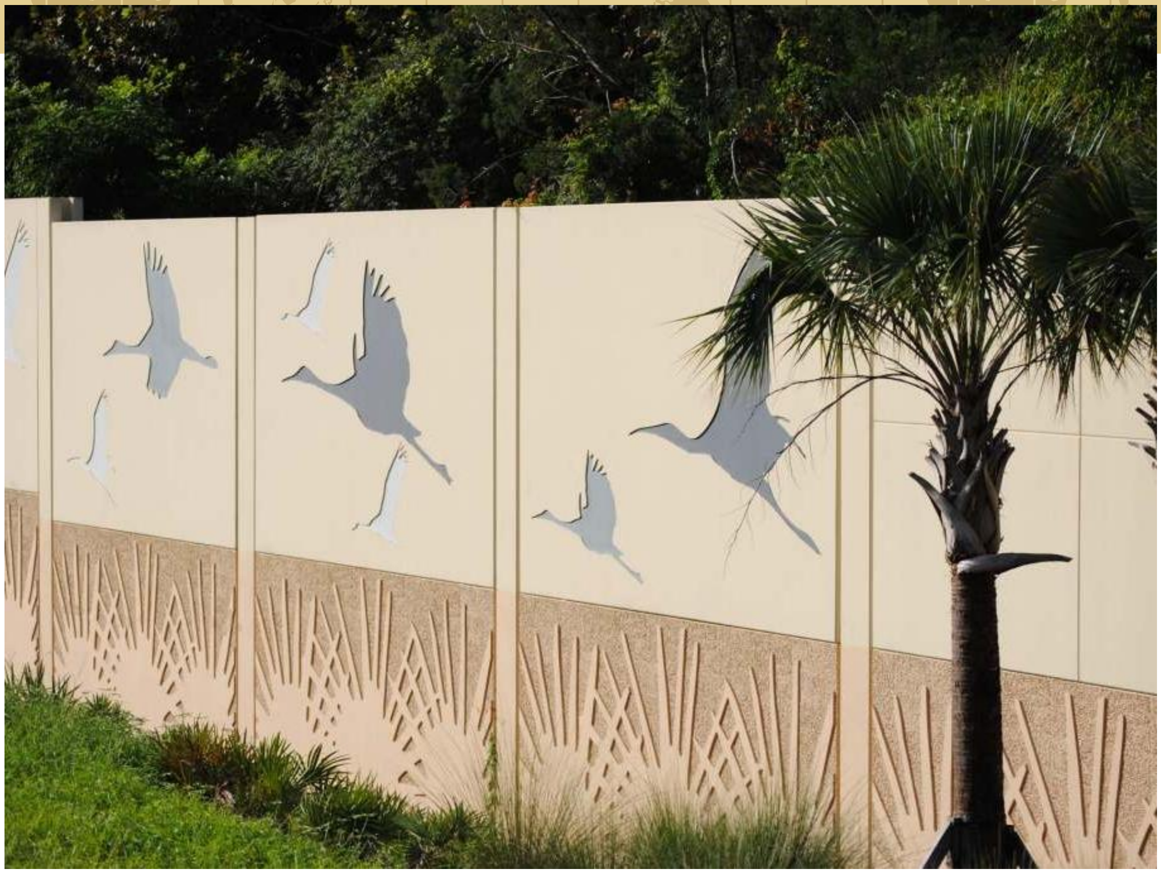
- Government's role: regulatory (inputs, outcomes, technology mandates, taxation).
- Road owner's role: like any other utility, to serve its customers well while complying with regulations and taxes.
- Bundling all externalities into the toll rate is a category mistake.

Air pollution and GHGs (U.S. experience)

- Conventional tailpipe emissions: technology mandates.
- GHG approach still in debate, but main emphasis seems to be fuel-economy mandates + subsidies for alternate-fuel vehicles.
- “Oil dependence” reduction is a side effect of GHG-reduction policies.
- All these measures target vehicles, not the road utility—for good reason.

Noise and runoff

- Runoff: EIR process leads to mandate to control, treat runoff from pavement.
- Noise: sound-wall requirements are now common for urban expressways.
- Unlike emissions, these regulations apply to the road owner, which can best deal with these externalities.



Sound Wall on Florida’s Turnpike, Orlando

Congestion and accidents

- These are not “externalities” in the classic sense—they are not negative impacts imposed on third parties; they are transfers among users of the facility.
- Accidents: road owner responsible for fast, efficient incident clearance (and may be liable for defects in roadway).
- Broader concerns (e.g., uninsured motorists) are a government regulatory matter.

Congestion

- Vehicles enter a congested expressway knowing it is congested; they impose costs on each other, not on 3rd parties.
- Network owner/operator must optimize capacity of network; it's wasteful to size it for peak loads.
- Congestion pricing spreads out peaks and generates additional revenue for (some) costly capacity increases.
- Same problem faced by electric, gas, and telecom utilities; not unique to highways.

Conclusions (1)

- The idea of bundling the “cost to society” of all highway-related negative externalities into a road user charge is a category mistake.
- Addressing externalities is inherently a government regulatory responsibility.
- Many regulatory tools exist for dealing with specific externalities—no need for “one size fits all” approach.

Conclusions (2)

- Tailpipe emissions (including GHGs) are the responsibility of those who produce and use motor vehicles, not the road utility.
- Runoff and noise are best dealt with by the road utility, in response to regulatory mandates.
- Congestion is not an externality; addressing it is the road utility's job, in the interest of cost-effective customer service.
- This includes prompt clearance of accidents and other incidents.

Conclusions (3)

- A road utility is not a regulator; it's a service business (like electricity, gas, and water utilities).
- The charge for using a road should cover the cost of building, operating, and maintaining it (including congestion management).
- If governments impose a "green tax" on driving, that's the government's responsibility.

Questions?

Robert W. Poole, Jr.
www.reason.org/transportation
Bob.Poole@reason.org

Reason