Future Interstate Study

Taking the road more traveled by...
Section 6021 of the FAST Act

TRB will “conduct a study on the actions needed to upgrade and restore the Dwight D. Eisenhower National System of Interstate and Defense Highways as a premier system that meets the growing and shifting demands of the 21st Century.”
Statement of Task

The study will make recommendations to address the need for preservation and improvement of the Interstate System.
By considering —

- the expected condition of the current Interstate System over the period of 50 years... including long-term deterioration and reconstruction needs;

- future demands on transportation infrastructure, including commercial and private traffic flows to serve future economic activity and growth;

- features that would take advantage of technological capabilities to address modern standards of construction, maintenance, and operations,

- modifications to the Interstate system to more efficiently serve national traffic flows.
Wild Cards

1. Climate Change

2. CAVE (Connected and Autonomous Vehicles — that might be Electric)

3. Trade & Tariffs
Tapping into industry expertise

Listening sessions

- Outreach to regional communities as well as to experts on specific topics
  - February, **San Francisco** — MPOs, regional councils, funding/financing, corridor coalitions
  - March, **Miami** — Environmental issues, resilience, climate change, public transit
  - May, **Detroit/Ann Arbor** — C/AVs, highway operations, asset management
  - July, **Chicago** — Freight, economic development, defense
  - September 12-13, **Austin** — Construction, land use, and social equity
  - November 7-8, **Washington DC** — Highway safety

- Commissioned papers to identify short-, mid- and long-term “agents” of change and effects on demand
Timeline

• 2017 — Information gathering, listening sessions, white papers, case studies and modeling
• February 2018 — Analysis completion
• June 2018 — Report finalized
• December 2018 — Report delivery to Congress
• Jan-March 2019 — Dissemination activities
Importance to Transportation

Interstate System =

1% total roadway mileage

25% vehicle miles traveled
US Domestic Freight by Mode: 1980-2014

U.S. Domestic Freight Market Share by Mode (Ton-miles)

Source: USDOT Bureau of Transportation Statistics, 2017
Importance to the Nation

“The greatest public works project in the history of mankind.”

Every Congressman who ever cut a ribbon on the Interstate System
Interstate Development: Great Early Returns

Source: Nadiri and Mamuneas, 1996
Interstate Development: Later Diminishing Benefits

Net Rate of Return from Total Highway Capital, Private Physical Capital, and Interest Rates

Share of Productivity Growth due to Highway Capital

* Proxy for National Highway System
In the original program, we did not include provisions for expressways through cities. That was added later. It greatly increased the cost of the program, and it is these expressways that are not very popular today. So I think we might have paid more attention to the bypassing of cities. Although, there again, a city doesn’t want to be bypassed either. I’m not really sure what the answer is with relation to our big cities and the freeways.

General Lucius Clay  
Chairman, President’s Advisory Committee on a National Highway Program
[In bigger cities], only a major operation will suffice – nothing less than the creation of a depressed or an elevated artery (the former usually to be preferred) that will convey the massed movement pressing into, and through, the heart of the city, under or over the local cross streets without interruption by their conflicting traffic.

Herbert Fairbank
*Toll Roads and Free Roads, 1939*
Highway engineers currently act on the principle of the hostess who, spying at opposite ends of a crowded drawing room two people who have not yet met, thinks only of how to bring them together, though in doing so she may jostle and squeeze against her other guests, interrupt conversations, knock the cocktail tray out of the butler’s hands, and embarrass the two recipients of her intentions, who would have been far happier had they been left alone.

If these engineers had the faintest insight into the art of city planning, they would know that long-distance highways should never enter a city’s limits; that, on the contrary, they should bypass every large urban area, though offering a number of approaches.

Lewis Mumford
Landscape Architecture, 1957
Freeway Revolts: San Francisco

Picketers protesting against the Southern Freeway marching at City Hall, April 18, 1961.
Photo: San Francisco History Center, San Francisco Public Library

Revolt Against Freeways Led by San Francisco

LA Times, 9/2/1963

Proposed S.F. Freeway Triggers Public Outcry
Residents Bitterly Oppose Any Moves They Fear Will Spoil Beauty of City

LA Times, 4/13/1964

Study on Shifting S.F. Freeway Funds OK'd
Delay Could Mean Loss in Federal Aid; Assembly May Reconsider Its Vote Today

LA Times, 5/20/1964
Freeway Revolts: San Francisco

Save the Panhandle Park rally in Golden Gate Park, May 17, 1964.
Photo: Bancroft Library

LA Times, 9/3/1963

LA Times, 11/20/1964

LA Times, 9/3/1963
Freeway Revolts: San Francisco

2 New Freeways Are Turned Down By San Francisco
NY Times, 3/22/1966

NY Times, 3/27/1966

LA Times, 3/20/1966


Freeway protesters in City Hall, c. 1960
Photo: San Francisco History Center, San Francisco Public Library
Freeway Revolts: New Orleans

Volpe Vetoes a Freeway to Save French Quarter in New Orleans

NY Times, 7/10/1969
Freeway Revolts: Washington D.C.

Freeway Planning Struggle in Washington May Determine Shape of Nation’s Urban Highway System

NY Times, 1/28/1968
Freeway Revolts: New York


https://www.flickr.com/photos/vanshnookenraggen/21259565925/in/album-72157658381636785/
Many of L.A.'s freeways were built during the 1960s, but a combination of a freeway revolt, skyrocketing costs and a failure to increase the gas tax doomed the expansion of the freeway system during the 1970s.

LA Times, 10/28/2014
Interstate Removal

SF Embarcadero: Before & After

San Francisco Planning Department
Interstate Removal

Boston Big Dig: Before & After
[The Interstate System] has its problems. It is so big, and its components so expensive, that maintaining the beast has become a real quandary. It represents a spectacular investment in a mode of transport that will wither without new fuel sources. It is clogged with rush-hour traffic that approaches the tie-ups it was intended, in part, to ease. And it has been blamed, and rightly, for a pox of unforeseen consequences: for hastening the messy sprawl of U.S. cities, carving up neighborhoods, gutting a thousand small-town shopping districts, and fostering an interchange glut of motels and fast-food joints as predictable as the roads themselves.

_**Earl Swift**_

_The Big Roads, 2011_
Glass Half Full

“Our unity as a nation is sustained by free communication of thought and by easy transportation of people and goods... Together the unifying forces of our communication and transportation systems are dynamic elements in the very name we bear — United States. Without them, we would be a mere alliance of many separate parts.”

— Dwight D. Eisenhower, 1955
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For more information:

Interstate.trb.org