The United States' Crumbling Infrastructure

Will Trump be able to solve the crisis?

By Clifford A. Kiracofe

The author is a former senior professional staff member of the U.S. Senate Foreign Relations Committee

Can U.S. President Donald Trump and his administration fix crumbling infrastructure across the United States? Realistically, it is a tall order after decades of neglect and unnecessary foreign wars.

Politicians from both parties in Washington seek to divert the public's attention from economic and social ills at home through an aggressive and highly militarized foreign policy and bombastic propaganda. But thoughtful critics point to a wide array of economic and social issues which urgently need attention in the United States.

Infrastructure is high on the list but can the White House and Congress agree on a way forward? Consider a few examples of the realities.

The American Society of Civil Engineers (ASCE) issues regular reports on infrastructure conditions in the United States. Year after year, the society has called attention to crumbling infrastructure seen in American highways, bridges, ports, inland waterways, and drinking water systems. Historically, the United States developed its infrastructure rapidly after World War I and World War II (WWII). Yet since then it has not maintained and developed its infrastructure, either at the federal or state level.

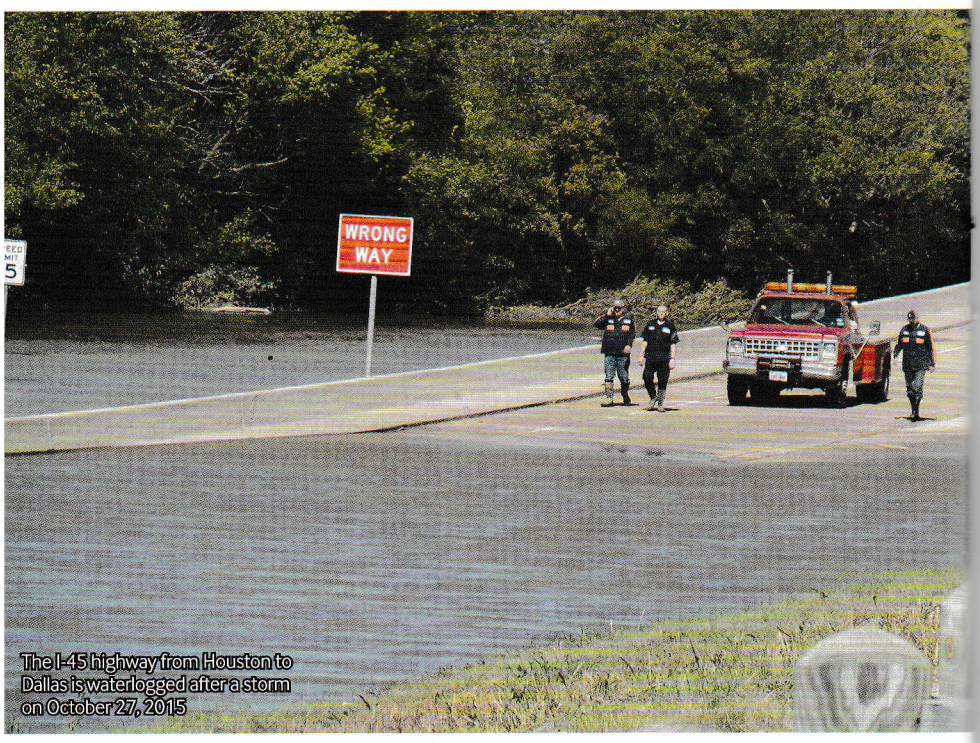
The last major projects that some in the older generation can remember are the Interstate Highway System and the St. Lawrence Seaway System, which were both developed during the Dwight Eisenhower administration in the 1950s. A few old-timers remember the large-scale water dam projects undertaken during the Franklin Roosevelt administration.

Waterways, levees, and dams

The inland waterways system has not been updated since the 1950s, and more than half the locks are over 50 years old. As a result, Barges are stopped for hours each day with unscheduled delays, preventing goods from reaching the market and driving up costs.

Examining the river levee system, which protects farmland as well as urban dwellings, ASCE estimates that the country has approximately 161,000 kilometers of levees, located in all 50 states and in the District of Columbia. While many of these were originally used to protect farmland, they now increasingly protect developed communities.

The reliability of these levees is unknown in many cases, since Washington has yet to establish a national levee safety program. Reparation



The I-45 highway from Houston to Dallas is waterlogged after a storm on October 27, 2015

costs for these levees are estimated at $100 billion by the National Committee on Levee Safety. The average age of dams in the United States is 52 years; by 2020, 70 percent of them will be over 50 years old. Many dams are not expected to withstand current predictions regarding large floods and earthquakes.

Water issues

Nearly 170,000 public drinking water systems are located across the nation. Of these, 54,000 are community water systems that collectively serve more than 264 million people. Although new pipes are being added to expand service areas, drinking-water systems degrade over time, with the shelf life of component parts ranging from 15 to 95 years. Especially in the older cities, much of the drinking water infrastructure is old and in need of replacement.

It is estimated that more than 1.6 million km of water mains exist in the United States. The conditions of many of these pipes are unknown, as they are buried underground out of sight, and owned and operated by various local entities. Some pipes date back to the Civil War era in the mid-19th century and are rarely examined unless a problem occurs.

There are an estimated 240,000 water main breaks per year in the United States. Assuming every pipe would need to be replaced, the cost over the coming decades could reach more than $1 trillion, according to the American Water Works Association. There are also between 1.12 million and 1.28 million km of public sewer mains. Many of these pipes were installed after WWII, meaning they are now approaching the end of their useful life. Capital investment in those pipes accounts for between 80 percent and 85 percent of all wastewater system investment requirements in the United States. ASCE predicts that capital investment needs for the wastewater and storm water systems will total $298 billion over the next 20 years.

Bridges, railroads, electricity

In the Unites States, over 200 million trips are taken daily across deficient bridges in the 102 largest metropolitan regions. One in nine of the bridges is rated as structurally deficient.

The average age of the 607,380 bridges is currently 42 years. The Federal Highway Administration estimates that to eliminate the deficient backlog of bridges by 2028, the United States would need to invest $20.5 billion annually, while only $12.8 billion is currently being spent. ASCE says that the challenge for federal, state, and local governments is to increase bridge investments by $8 billion per year to address the issue. The United States rail network is made up of more than 257,000 km of track, 76,000 rail bridges, and 800 tunnels, which are shared by all operators moving freight and passengers. The 565 U.S. freight railroads are categorized into three classes based on the distance served and earnings.

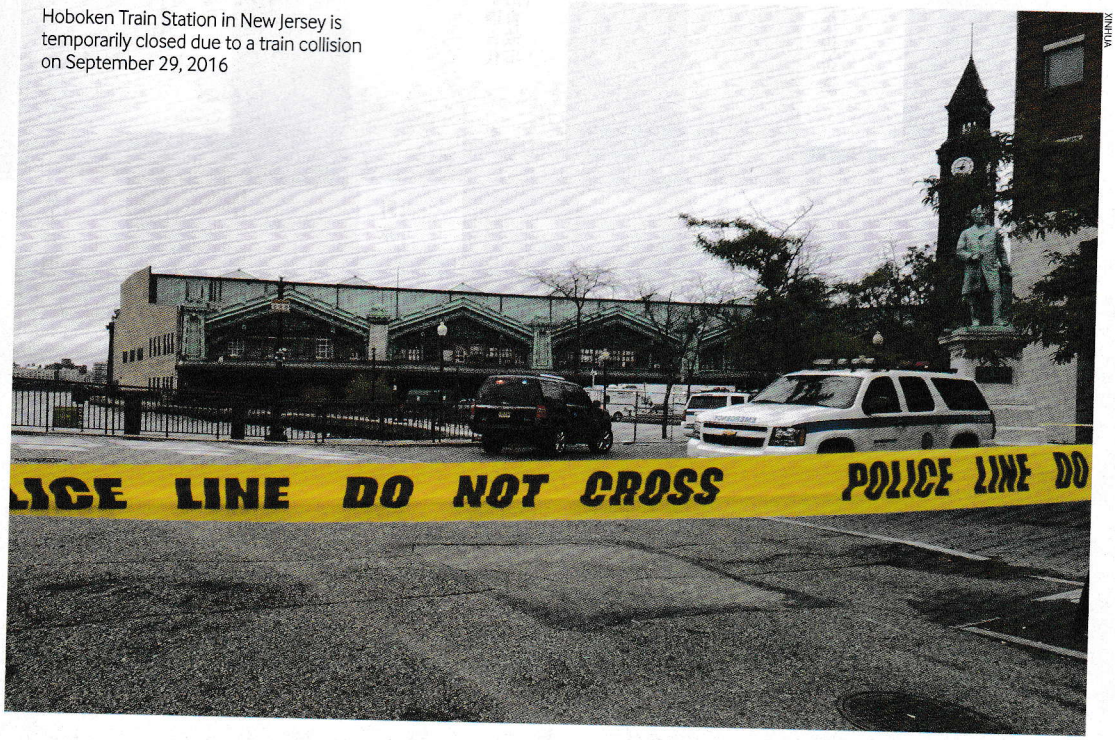
ASCE warns that as freight volumes increase relative to the network's capacity, overall congestion will increase for both freight and passenger rail. Congestion bottlenecks, in areas such as Chicago and the Northeast Corridor, cost the U.S. economy about $200 billion a year, or 1.6 percent of the economic output, and they will continue to escalate without boosting capacity to meet future demands. The United States relies on an aging electrical grid and pipeline distribution system, some of which originated in the 1880s. Investment in power transmission has increased since 2005, but ongoing permitting issues, weather events, and limited maintenance have contributed to an increasing number of failures and power interruptions, ASCE says.

ASCE estimates that at least $3.5 trillion must be invested in the near term to update the crumbling infrastructure. However, delusional politicians in Washington have wasted over $5 trillion on unnecessary and ongoing wars in Iraq and Afghanistan.

The Trump administration and Congress talk about infrastructure expenditures of only $1 trillion. Washington must face reality and the politicians must come to their senses by fully funding—without delay—domestic infrastructure. ■

Copyedited by Dominic James Madar
Comments to liuyunyun@bjreview.com

VCG



VCG

Hoboken Train Station in New Jersey is temporarily closed due to a train collision on September 29, 2016