Massachusetts interstate system’s rate of bridge and pavement deterioration and congestion among highest in US

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As the U.S. Interstate Highway System reaches 64 years old, it faces increasing congestion, unprecedented levels of travel - particularly by large trucks - and insufficient funding to make needed repairs and improvements. America’s most critical transportation link will need to be rebuilt and expanded to meet the nation’s growing transportation needs, according to a report released today by TRIP, a national transportation research nonprofit. The report, Restoring the Interstate Highway System: Meeting America’s Transportation Needs with a Reliable, Safe & Well-Maintained National Highway Network, looks at the Interstate system’s use, condition and benefits, and the findings of a 2019 report prepared by the Transportation Research Board (TRB), at the request of Congress as part of the Fixing America’s Surface Transportation (FAST) Act, on the condition and use of the Interstate system and on actions required to restore and upgrade the Interstate system.

The chart below ranks states whose Interstate systems are the most congested, have experienced the greatest increase in vehicle miles of travel (VMT) since 2000, carry the greatest share of commercial trucks, have the largest share of pavement in poor condition and bridges in poor/structurally deficient condition, and have the highest fatality rate.

According to the TRB report, the U.S. Interstate system has a persistent and growing backlog of physical and operational deficiencies as a result of age, heavy use and deferred reinvestment, and is in need of major reconstruction and modernization. The TRB report concludes that annual investment in the Interstate Highway System should be increased approximately two-and-a-half times, from $23 billion in 2018 to $57 billion annually over the next 20 years.

“A safe and well-maintained Interstate highway system can strengthen America’s economy, enhance personal mobility, and facilitate more efficient movement of goods—but the future of this network could be in jeopardy without increased federal investment. AAA Northeast advocates for the prioritization of transportation investments to ensure safe, efficient and reliable mobility in Massachusetts and across the Interstate Highway System,” said Mary Maguire, AAA Northeast director of public and legislative affairs in the Commonwealth.

The TRIP report found that since 2000, travel on the U.S. Interstate system, the importance of which has been
heightened during the COVID-19 pandemic, has increased at a rate nearly triple that at which new lane capacity is being added. In Massachusetts, 70 percent of urban Interstate highways are considered congested during peak hours, the sixth greatest share in the U.S. Vehicle travel on Massachusetts’ Interstates increased 17 percent from 2000 to 2018. Five percent of Interstate travel in Massachusetts is by combination trucks.

“The report released by TRIP confirms what American businesses experience every day—our Interstate highway system, which was once the envy of the world, is in serious need of modernization,” said Ed Mortimer, vice president of transportation infrastructure, U.S. Chamber of Commerce. “Commitment to modernization must be shared by federal, state and local leaders as well as the private sector. The Interstate system plays a key national role in economic success and quality of life for every American, and we continue to urge bipartisan solutions to address this critical issue. “ TRIP’s report finds that while pavement smoothness on most segments of the U.S. Interstate system is acceptable, the crumbling foundations of most highway segments need to be reconstructed, and that continued resurfacing rather than addressing underlying foundational issues provides diminishing returns and results in shorter periods of pavement smoothness.

As the aging system’s foundations continue to deteriorate, most Interstate highways, bridges and interchanges will need to be rebuilt or replaced. According to the TRIP report, pavements on three percent of Massachusetts’ Interstate highways are in poor condition, the 17th highest share in the nation. Six percent of Massachusetts’ Interstate bridges are rated in poor/structurally deficient condition, the fourth highest share in the U.S. Ninety-three percent of Massachusetts’ Interstate bridges are in need of repair or replacement.

“Carrying more than half of truck travel, the Interstate Highway System is critical to the nation’s supply chain. With $75 billion in cost added to freight transportation each year and 67 million tons of carbon dioxide from trucks released into the air due to highway congestion, the United States cannot afford to wait any longer to make the investments necessary to address systemic and growing problems stemming from decades of neglect,” said Chris Spear, president and CEO of the American Trucking Associations. “It is past time for elected officials to provide sufficient and sustainable funding for Interstate highway improvements.”

The design of the Interstate – which includes a separation from other roads and rail lines, a minimum of four lanes, paved shoulders and median barriers – makes Massachusetts’ Interstates nearly twice as safe to travel on as all other roadways. The fatality rate per 100 million vehicle miles of travel on Massachusetts’ Interstate in 2018 was 0.32, compared to 0.62 on the state’s non-Interstate routes. TRIP estimates that additional safety features on Massachusetts’ Interstate Highway System saved 54 lives in 2018.

Restoring and upgrading the Interstate Highway System to meet the nation’s 21st Century transportation needs will require strong federal leadership and a robust federal-state partnership to reestablish the Interstate Highway System as the nation’s premier transportation network. The current federal surface transportation program, Fixing America’s Surface Transportation (FAST Act), the primary source of Interstate highway funding, expires on September 30, 2020, and the reauthorization of a new long-term, adequately and reliably funded long-term federal program will be needed to ensure that a strong federal program supports the restoration of the Interstate system.

“With the expiration of the FAST Act rapidly approaching, this report reaffirms how critical it is for lawmakers to prioritize reauthorizing a long-term, fully funded federal highway program this year,” said Rod Schrader, chairman and CEO of Komatsu’s North American operations and chair of the Association of Equipment Manufacturers CE Sector.

“Meeting the critical equipment and supply needs of essential industries including construction and agriculture requires a dependable, modernized national transportation network. Equipment manufacturers are working hard to keep these vital industries properly supplied in the midst of COVID-19 and we need lawmakers to do their part to support these essential supply chains now and for the long haul.”

The ability of states to invest in Interstate highway repairs and improvements will be hampered by the tremendous decrease in vehicle travel that has occurred due to the COVID-19 pandemic, which is estimated to reduce state transportation revenues by at least 30 percent – approximately $50 billion - over the next 18 months.

Based on the findings of the TRB Interstate report, TRIP has provided a set of recommendations for the restoration of the Interstate Highway System, which includes: the foundational reconstruction of Interstate highways, bridges and interchanges; improvement to roadway safety features; system right-sizing, including upgrading of some roadway corridors to Interstate standards; adding needed additional highway capacity on existing routes; adding additional corridors; and, modifying some urban segments to maintain connectivity while remediating economic and social disruption.

“The long-term vision that helped establish the current Interstate system nearly 65 years ago is needed again today,” said Dave Kearby, TRIP’s executive director. “In order to rebuild the nation’s economy, maintain personal and commercial mobility, and improve quality of life, adequate transportation investment and a sustainable, long-term funding source for the federal surface transportation program must remain a priority.”