

The Economic Benefits and Impacts of Expanded Infrastructure Investment

The Council of Economic Advisers
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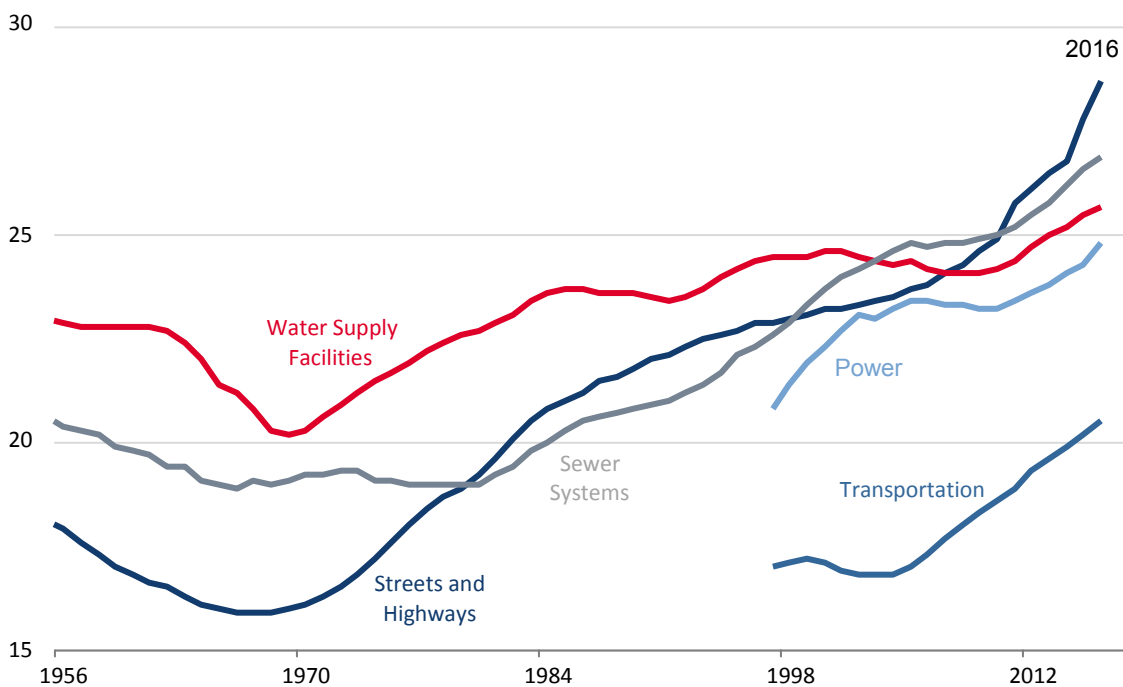
(Excerpt)

Introduction

America's infrastructure needs an upgrade. In 2017, the American Society of Civil Engineers (ASCE) gave the nation a grade of D+ in its most recent infrastructure report card, little changed from previous years, and put a \$4.6 trillion price tag on the investments that would be required between 2016 and 2025 to bring the nation's infrastructure assets to a state of good repair across many sectors, including surface transportation, aviation, water utilities and water resource management, and energy. Furthermore, the ASCE estimates that over the same 10 years, there will be an infrastructure funding gap of nearly \$2.1 trillion, which will be significantly reduced by the current infrastructure plan put forth by the Administration. Without continued investment and maintenance, America's infrastructure will continue to age (Figure 1), deteriorate in quality and capacity, and gradually contribute less to American output.

Figure 1. Average Age of Public Structures, 1956–2016

(Age, Years)



Source: Bureau of Economic Analysis.

Our Nation’s infrastructure—its roads, bridges, waterways, energy facilities, telecommunications networks, and other public assets—support our economic activity, trade, and commerce both domestically and abroad. However, recent decades have seen sustained growth in the demand for infrastructure services that has not been met with corresponding growth in and maintenance of their supply.

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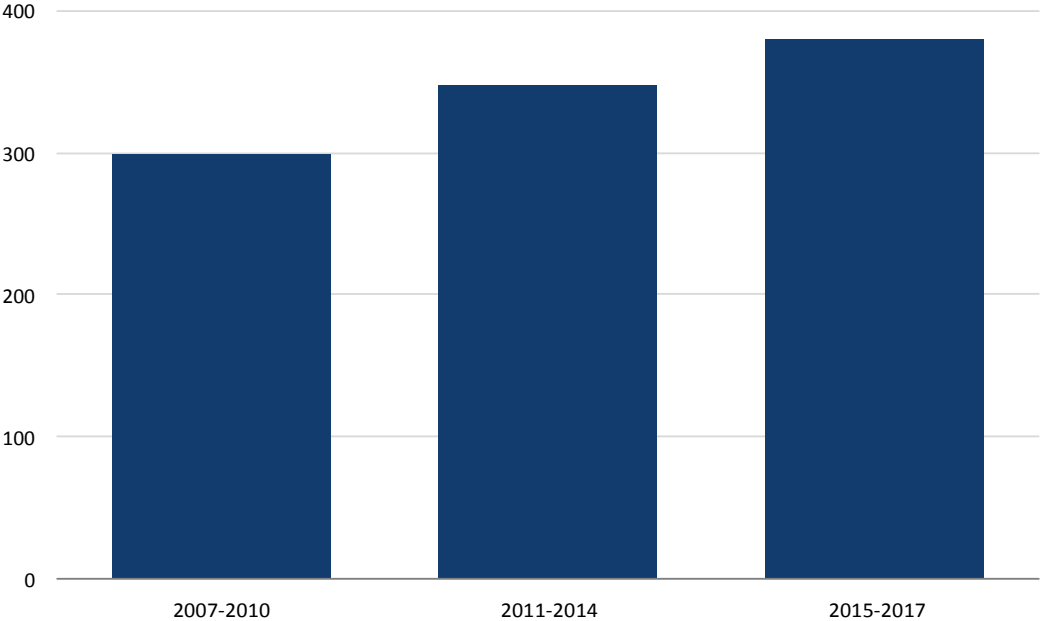
Excess demand and service quality problems are not confined to the transportation sector. In the water and wastewater sector, the U.S. Environmental Protection Agency (EPA) estimates that \$655 billion is needed over the course of 20 years to upgrade and replace infrastructure in the water and wastewater sectors (EPA 2016). The \$271 billion wastewater collection and treatment facilities investment (EPA 2012), alongside a \$384 billion drinking water investment (EPA 2013), would reduce the risk of water loss from water main breaks and raw sewage discharges into local water supplies, and improve overall water quality. Recent research (Allaire, Wu, and Lall 2018) indicates that 9 percent of community water systems serving nearly 21 million people violated health-based water quality standards in 2015, with violation incidence higher in rural areas than in urbanized areas.

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The energy sector also offers multiple examples of projects for which permitting and environmental review concerns and potential delays are salient. Firms wishing to build pipelines for natural gas must submit applications to the Federal Energy Regulatory Commission (FERC). Data on such applications suggests that the time needed to approve such applications has increased over time: applications approved in 2007-2010 took at an average of 299 days to approve; by 2011-2014, that average had risen to 348 days; and over the 2015-2017 period, rose even further to 380 (Figure 8).

Figure 8. Time for Pipeline Permit Approval, by Period of Initial Filing, 2007–2017

(Average Days from Application Date to Permit Issue)



Source: Federal Energy Regulatory Commission, Pipeline Approvals, CEA calculations.