Aggregates Contribution to U.S. Infrastructure Investment

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Issue

The restoration of an aging transportation infrastructure in the United States will require the availability and production of a substantial amount of aggregates. Aggregates (crushed stone, sand and gravel) provide the literal foundation of our nation and are, therefore, an essential component of the U.S. infrastructure. Ninety-four percent of asphalt pavement is aggregate and 80 percent of concrete is aggregate. Thirty-one percent of aggregates are used in roads and highways, 33 percent in residential construction, and 36 percent in commercial construction and public works (airports, water treatment plants, schools, etc.).

According to the American Society for Civil Engineers' 2013 *Report Card for America's Infrastructure*, investing in infrastructure is essential to support healthy, vibrant communities, and is critical for long-term economic growth, increasing gross domestic product (GDP), employment, household income and exports. The reverse is also true – without giving priority to our nation's infrastructure needs, deteriorating conditions can become a drag on the economy. Currently, the Federal Highway Administration (FHWA) estimates that $170 billion in capital investment would be needed on an annual basis to significantly improve conditions and performance. Unless the United States addresses the backlog of projects and deferred maintenance throughout the country, the cost to each American family will reach $3,100 per year in personal disposable income.

Background

The aggregates industry workforce, composed of about 110,000 men and women, produced more than two billion metric tons of aggregates in 2012 at a value of approximately $17.4 billion, contributing $40 billion to the GDP of the United States. About eight tons of aggregates are used per person annually in America. Every mile of interstate contains 38,000 tons of aggregates, and about 400 tons of aggregates are used in the construction of an average home.

America's highway and transportation infrastructure is badly in need of upgrading. Forty-two percent of America's major urban highways remain congested, costing the economy an estimated $101 billion in wasted time and fuel annually. One in nine of the nation's bridges are rated as structurally deficient, while the average age of the nation's 607,380 bridges is currently 42 years. The FHWA estimates that to eliminate the nation's bridge backlog by 2028, we would need to invest $20.5 billion annually, while only $12.8 billion is being spent currently.

Together, the ISTEA, TEA 21, SAFETEA-LU and MAP-21 transportation infrastructure programs have begun to address the enormous job of simply repairing and maintaining our nation's highway system. However, this will require an enormous readily available supply of quality aggregates.

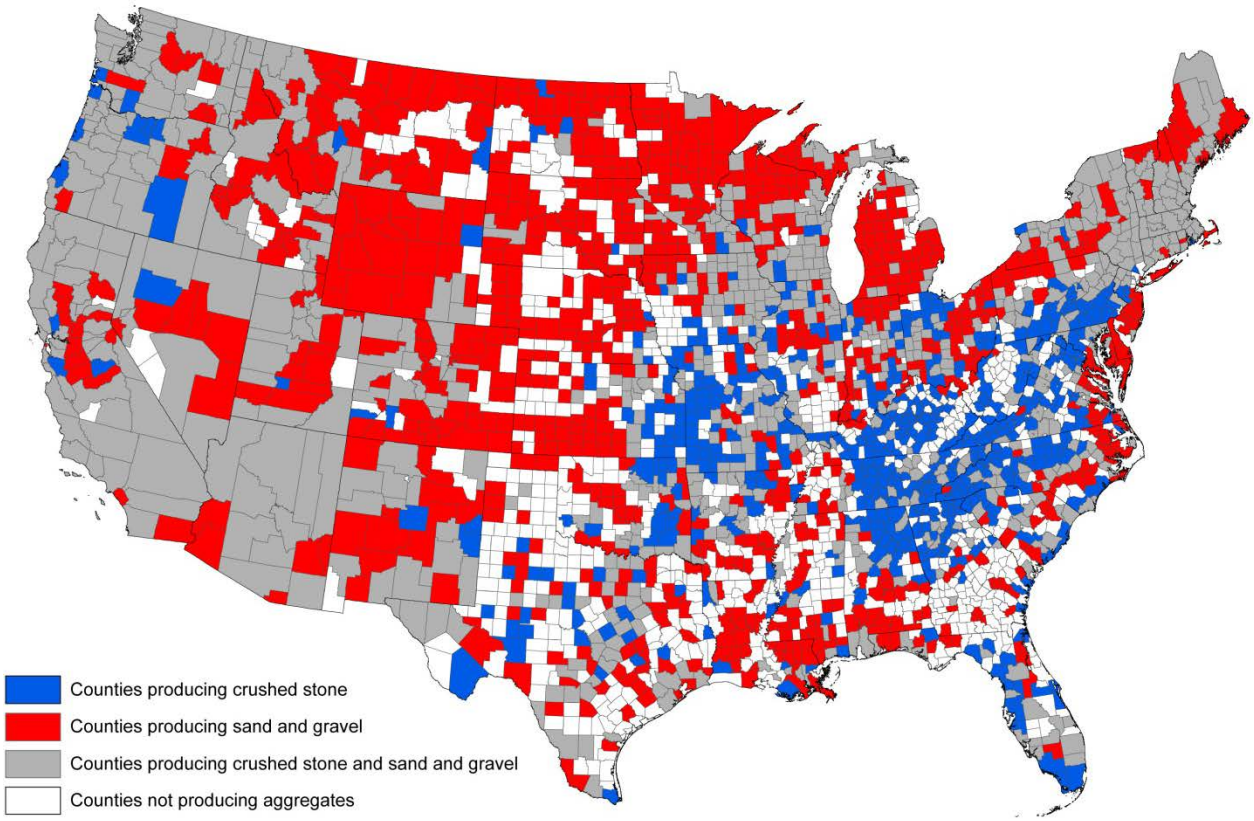

Figure 1. U.S. counties producing natural aggregates. Source: USGS 2012

There are more than 10,000 construction aggregate operations nationwide. Proximity to market is critical due to high transportation costs. Consequently, 70 percent of our nation's counties include an aggregates operation. Virtually every congressional district is home to a crushed stone, sand or gravel operation.

SME Statement of Technical Position

- Nearly two-thirds of the non-fuel minerals mined each year in the United States are aggregates.
- Every $1 million in aggregate sales creates 19.5 jobs.
- Every dollar of aggregates industry output returns $1.58 to the economy.
- For every $1 billion spent on highway construction, between 28,000 and 34,000 jobs are generated each year.
- Every dollar invested in the highway system yields $5.20 in economic benefits to the nation.

Infrastructure improvements will require easy access to large quantities of quality aggregates that provide the basic building blocks for the economy and are essential to the safety, security and high quality of life for all Americans. Infrastructure is the foundation that connects the nation’s businesses, communities and people, driving our economy and improving our quality of life. For the U.S. economy to be the most competitive in the world, we need a first-class infrastructure system that transports people and goods efficiently and at a reasonable cost. Yet today, our infrastructure systems are failing to keep pace with the current and expanding needs, and investment in infrastructure is faltering. Laws, policies and land use plans must continue to facilitate access to, and the availability of, construction aggregates. Therefore, full funding of the nation's transportation programs is a critical priority.

Sources: American Society of Civil Engineers’ 2013 Infrastructure Report Card
National Stone, Sand & Gravel Association
U.S. Geological Survey