PCA
America's Cement Manufacturers™

MARKET INTELLIGENCE

Contact: Ed Sullivan, Group VP & Chief Economist, (847) 972-9006, esullivan@cement.org

December 9, 2015

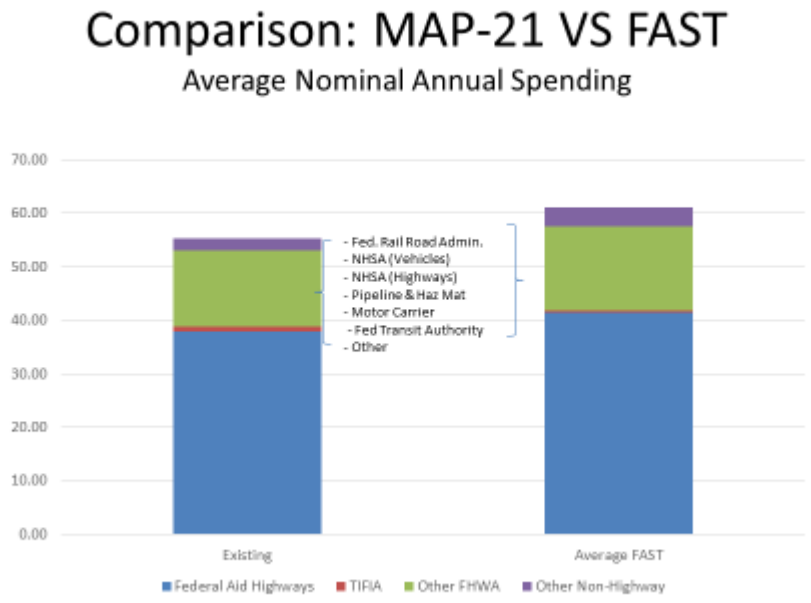
Impact of New Highway Bill on Cement Consumption

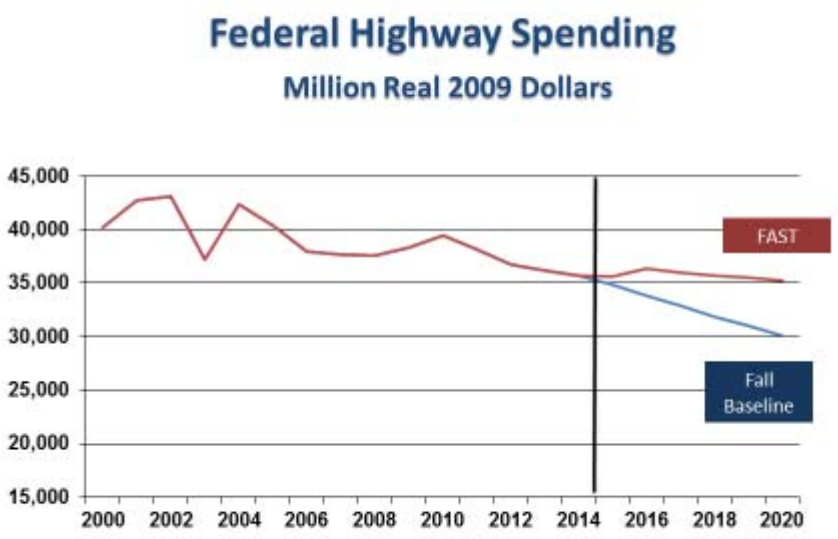
Overview

Congress passed a five year transportation bill that provides more than $305 billion to maintain and improve the nation's surface transportation programs. Of this, $207.4 billion will be targeted at the Federally Aided highway system. The bill is the first long-term (more than two years) transportation bill since September 2009. The new highway bill is named the Fixing America's Surface Transportation Act (FAST).

FAST includes several elements proposed by the cement industry, such as the authorization of a federal study to analyze the impact of pavement stiffness on vehicle fuel economy, the reauthorization of the Accelerated Implementation and Deployment of Pavement Technologies (AID-PT) program, and Hours of Service (HOS) exemptions for the ready-mixed concrete industry.

Perhaps more importantly, FAST increases existing funding levels with a five year commitment, which insures a more stable financing environment thereby enabling commitment to longer-term projects. Often these multi-year projects are characterized by higher cement intensities.





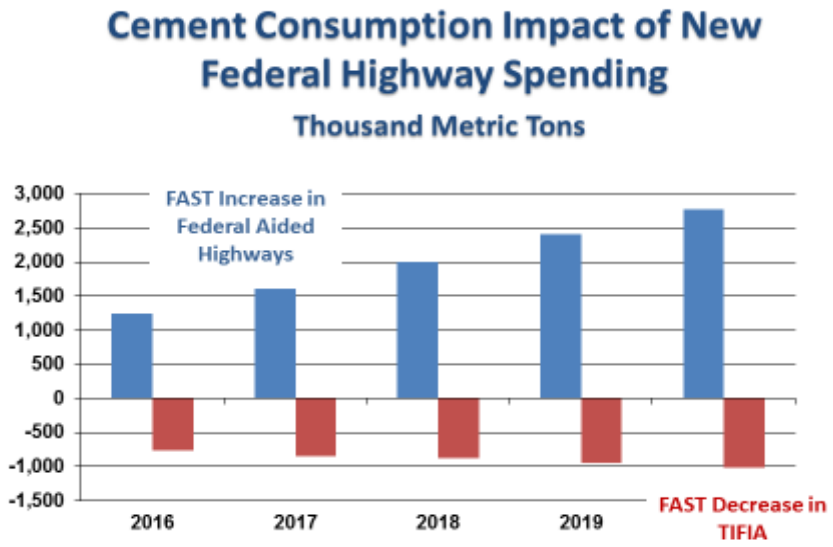
Impact on PCA's Cement Projections

Increased federal support to construction activity is not factored into the fall forecast. PCA assumes federal support of the highway program remains fixed in nominal values. In the context of inflation, this implies a gradually diminishing factor contributing toward public construction. According to the fall forecast scenario, real highway spending related to the highway bill declines 13.7% by 2020. Such a conclusion implies that the gradual strengthening in overall highway and roadway construction activity lies with the state and local side of the equation and not the federal side.

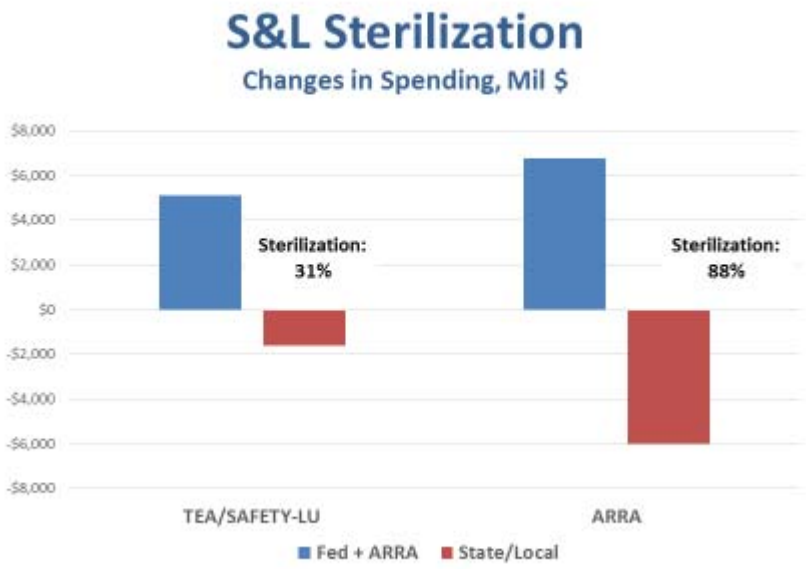
The new transportation bill contains DOT spending authorization for $305 billion, which contains programs other than highway spending. Included in the bill are spending authorizations for the Federal Railroad Administration, National Highway Safety Administration for both vehicle and highway research, Pipeline and Hazardous Materials, Motor Carriers and the Federal Transit Authority. While some of these programs will contribute to cement consumption, such impacts are considered secondary.

The largest impact for cement consumption regards authorizations for Federally Aided Highways for the Federal Highway Administration. These authorizations total more than $207 billion, or an average of nearly $41.5 billion annually during the five year program, compared to $38 billion under the current program – representing a 9.7% increase in nominal dollars. The program allows for a 5% increase in 2016, followed by 2% annual gains in subsequent years. These modest increases in nominal dollars result in holding real dollar spending constant throughout the program period.

A second program also carries significant importance for cement consumption, namely the Transportation, Infrastructure and Innovation Program (TIFIA). TIFIA is basically an infrastructure bank that is currently funded at $1 billion annually. TIFIA enhances the ability for state and local governments to finance large-scale construction projects. PCA's forecast assumed continued funding at $1 billion annually. Unfortunately, under FAST, TIFIA funding is decreased to an average annual level of $287 million.



By comparing the real spending authorizations associated with FAST to the assumptions in the fall forecast, a net increase is estimated. Cement highway intensities are applied to the net increases for each year of the forecast horizon. An initial estimate is determined regarding the incremental gains in cement consumption attributed to FAST. Since the fall forecast continues a sustained decline in real spending attributed to federal financial support, the cumulative impact on FAST, which keeps real spending constant, is larger in the out years of the forecast.

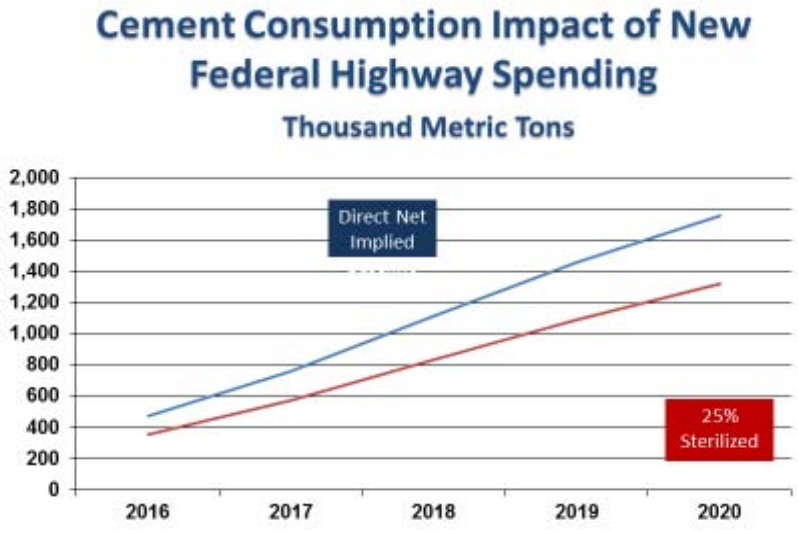


TIFIA funding under FAST is reduced more than 70% annually. PCA's fall forecast assumed continued funding at $1 billion annually and attributed an average of 1.2 million tons annually to the program during 2016-2020. The cement tonnage attributed to TIFIA is reduced proportionately, or by roughly 800 thousand tons annually.

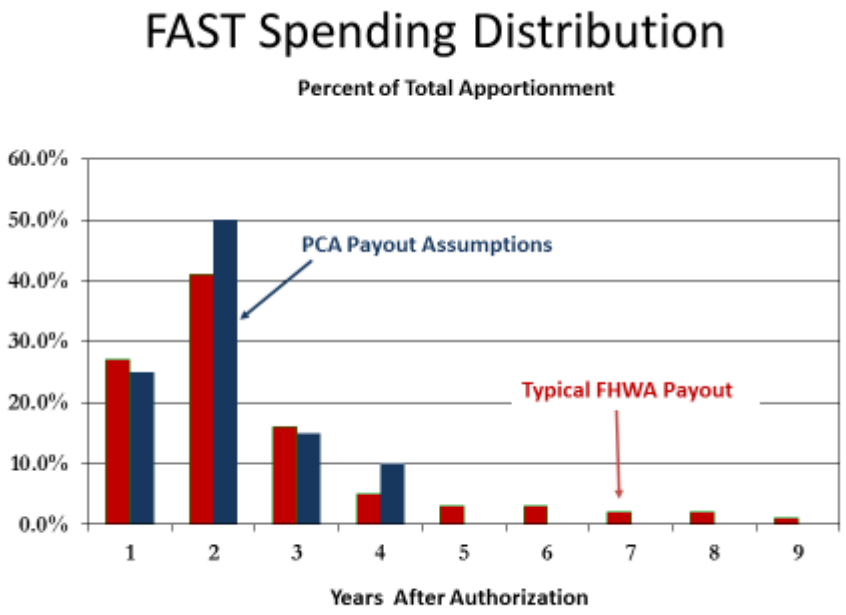
Compared to the fall forecast, Federally Aided Highway Authorizations are increased – adding to cement consumption. At the same time, TIFIA funding is decreased – reducing the net increase in cement consumption compared to the fall forecast projections.

There is another key factor to consider in assessing the net impact of FAST, after reactions by state and local governments. Often, increases in federal highway spending are met with offsetting reductions in spending by the state and local DOTs. This phenomenon is referred to as state and local sterilization. Increases in federal highway spending from TEA-21 to SAFETEA-LU coincided with reductions in state and local funding – sterilizing 31% of the federal increase. This occurred again with ARRA – sterilizing 88% of the federal spending increases. Deteriorating fiscal conditions at the state level undoubtedly played a role in the extent that sterilization materialized. Fiscal conditions are better now and will likely lead to less sterilization. It would be a mistake, however, to expect that sterilization would be completely absent. While risk should be attached to the estimate, PCA assumes 25% sterilization will occur at the state and local level.

Combining the impacts of increased spending for federally aided highways, TIFIA, and potential state and local sterilization leads to the net impact of FAST on the fall forecast projections. For the 2016-2020 horizon, FAST represents an average addition of 835 thousand metric tons annually to the fall projections. Smaller increases occur in the near term (370 thousand tons for 2016) and larger net increases occur in the out years of the forecast horizon (1.4 million tons for 2020).



Finally, it is important to distinguish between federal spending authorization and actual federal spending activity. Projects that are given the go-ahead based on spending authorization often take longer to complete. According to the FHWA, federally aided highway authorizations for a given year are spread out over a nine year horizon. PCA assumes a four year distribution with 25% occurring in the year



appropriated, 50% in the subsequent year, 15% in the third year, and 10% of the fourth year following the original spending authorization. Introducing this spending scheme into the analysis essentially reduces the increase in spending growth from FAST in the near term and adds to the spending growth accrued to FAST in the out years of the analysis.

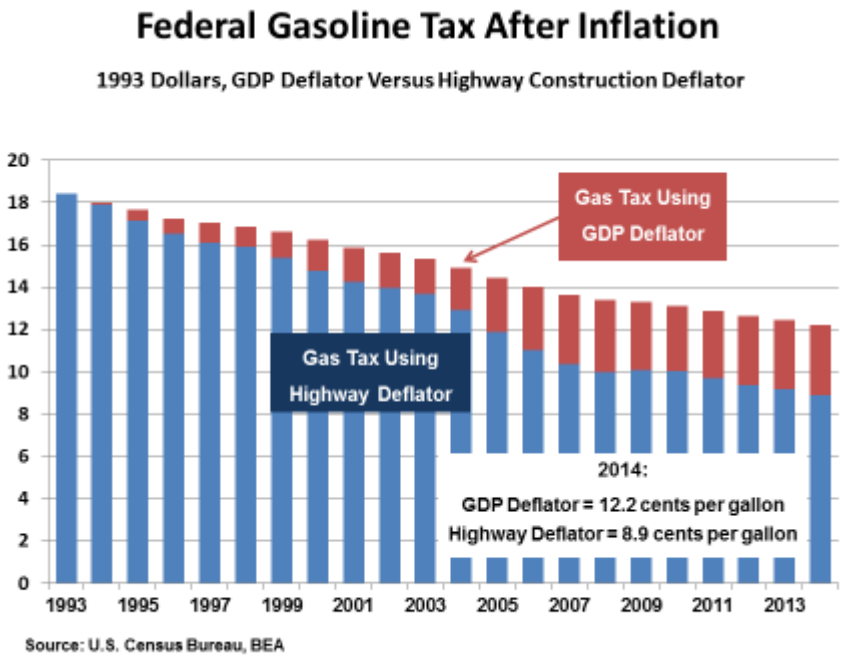
Longer Term Assessments of FAST

FAST is an improvement over MAP-21. The funding levels are modestly higher and it represents a multi-year commitment that enhances DOT willingness to engage in larger multi-year projects which are typically characterized by high intensities. There are, however, some troubling longer term assessments of FAST.

First, while many in Congress support an increase in infrastructure spending, finding a means to fund the increases needed to meet existing and future spending requirements has been a key stumbling point. Congress has been struggling for years to come up with a way to pay for a long-term transportation funding extension without raising the gas tax. The federal government typically spends about $50 billion per year on transportation projects; the gas tax only brings in $34 billion annually.

FAST does not adequately solve the funding equation within the parameters of the Highway Trust Fund (HTF) and requires $70 billion in support from the general budget as well as $50 billion in offsets from the Federal Reserve during the five year program. This leaves more than one third of FAST's funding coming from outside the HTF.

In the context of $13 trillion in current federal debt levels, this suggests the possibility that FAST could be regarded as a bailout of the HTF that could leave federal highway financing even worse off – particularly if in five years, the program is reviewed under less vibrant economic times. Keep in mind, the Congressional Budget Office (CBO) estimates that without reform, the trust fund would exhaust its reserves by 2021, requiring an additional $100 billion just to keep it solvent through 2025.



Second, the United States highway and bridge system is a critical asset of the economy. Its importance has often been overlooked and as a result, its' funding has been not kept pace with minimal maintenance requirements – and has already resulted in rising traffic congestion, higher transportation costs of goods to consumers, fuel waste, higher CO2 levels, reduced safety, and longer commutes. Without a commitment to maintain and expand existing roadways, these conditions will worsen when put in the context of the United States Census' population projections that suggest as more than 40 million more drivers will be on the road by 2035. Maintaining only constant real spending levels, as implied by FAST, are inadequate to maintain and expand existing road systems at levels dictated by demographics. Unfortunately, taxpayers will pay one way or another – either through higher taxes at the pump, or higher fuel waste and higher travel costs associated with higher traffic congestion – all at the expense of future economic growth.