







ARTBA 2016 Chairman David Zachry



ARTBA President & CEO Pete Ruane

THE ASSOCIATION IN THE ARENA

The December 2015 enactment of the Fixing America's Surface Transportation Act, or FAST Act, made clear at least three things.

One, bipartisanship is still alive in Washington, D.C. In the midst of arguably the most divisive political climate in generations, the FAST Act, which retained a strong federal role in transportation, generated 359 votes in the House and 83 in the Senate. It's hard to identify another policy matter that could garner such strong support from both political parties.

Two, since the July 2012 enactment of MAP-21 and up until the Dec. 3 final passage of the FAST Act, ARTBA and its outstanding advocacy leaders were relentless in their commitment to get the job done. As President Teddy Roosevelt aptly noted in his famous 1910 speech, "credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly."

Through the "Transportation Makes America Work" program, ARTBA executed the industry's only comprehensive, multi-year, multi-million dollar advocacy communications and grassroots lobbying campaign to build support for the final law. The effort was initiated in partnership with congressional transportation champions, and bolstered by extraordinary grassroots action by the association's state contractor chapters, members and key coalitions.

As you will see in this comprehensive analysis of the FAST Act and in the timeline of key ARTBA leadership activities on the "road to reauthorization" outlined in the following pages, no other construction industry organization even comes close to matching ARTBA's singular focus, energy and intellectual firepower, and commitment of financial resources to the fight at hand.

Third, it's also clear that an advocate's job is never done.

Yes, the FAST Act provides five years of funding predictability that will stabilize the transportation construction market and bring more certainty for state agencies planning new infrastructure projects. It puts in place a reporting process that will provide more transparency and accountability to U.S. taxpayers. And it also creates the program framework to finally start modernizing our National Highway Freight Network, a concept ARTBA has been pushing since 2006 with its "Critical Commerce Corridors" proposal.

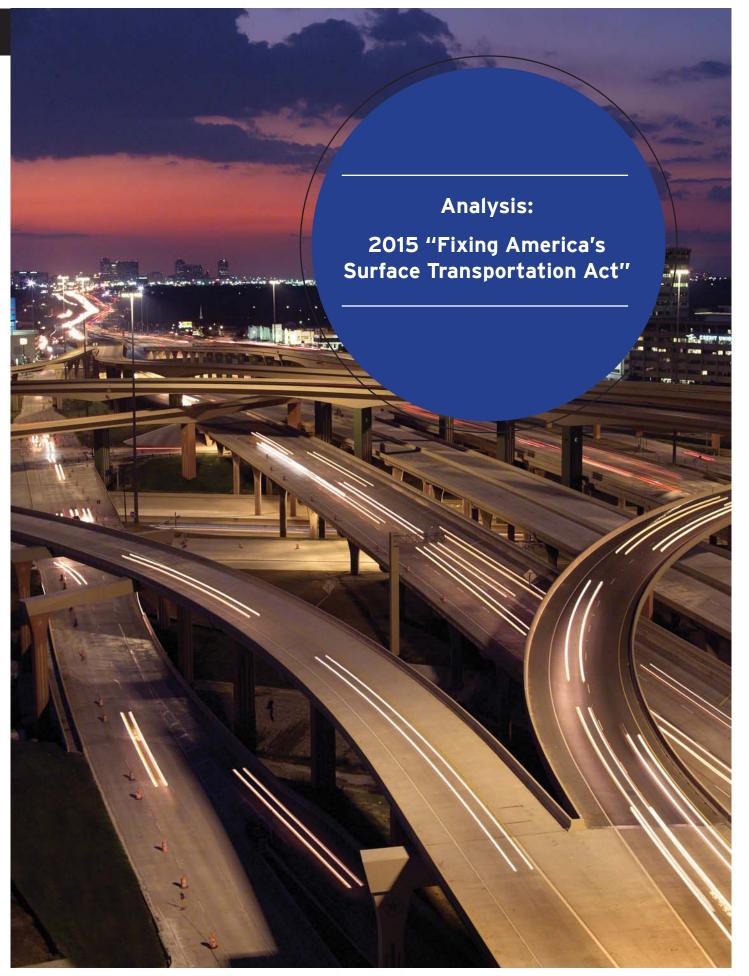
But there is a great deal of work ahead since both Congress and the Obama Administration sidestepped a golden opportunity to put the federal highway and transit investment program back on solid financial footing.

Pushing for a permanent funding solution for the Highway Trust Fund remains the paramount challenge in the coming years. Rest assured, ARTBA remains in the arena still fighting—and fighting smart—on behalf of the U.S. transportation design and construction industry!

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EXECUTIVE SUMMARY

The House and Senate overwhelmingly approved the "Fixing America's Surface Transportation Act," or FAST Act, which reauthorizes the federal surface transportation programs through FY 2020 on December 3, 2015. The final vote represented the culmination of incredibly hard work by ARTBA, its member firms, agencies, and state contractor chapters and industry coalitions that began back in July 2012, shortly after President Obama signed MAP-21 into law.

The five-year, \$305 billion measure provides \$286 billion for the federal highway and public transportation programs that will enable modest funding increases that exceed inflation over its life. It also includes a host of policy reforms that ARTBA has championed for years.

However, the FAST Act once again falls back on recent congressional practices of providing a one-time transfer of funds to supplement existing Highway Trust Fund (HTF) revenues without any path forward to establishing a real solution to the fund's structural revenue deficit.

The FAST Act grows highway investment from the current level of \$40.3 billion to \$46.4 billion—an average annual increase of nearly 3 percent. Public transportation funding will increase from \$10.7 billion to \$12.6 billion—an average annual increase of 3.4 percent. To put these increases in context: the two-year, MAP-21 law increased highway investment by 1.5 percent annually and transit funding by 1.1 percent per year; and 2005's SAFETEA-LU law increased highway investment by an average of 4 percent per year and transit spending by an average of 7.3 percent annually.

The FAST Act delivers a long-time ARTBA and transportation construction industry priority by creating a new "National Highway Freight Program" that provides states on average \$1.26 billion per year to support highway-related freight improvements. Since 2006, ARTBA has advocated for a dedicated goods movement program called "Critical Commerce Corridors."

The FAST Act's "National Highway Freight Program" is complemented by a new "Nationally Significant Freight and Highway Projects Program" that will provide on average \$900 million annually for large-scale projects. These two new initiatives target resources at national priorities and underscore the critical role of the federal government in maintaining the U.S. surface transportation network.

Other ARTBA priorities achieved in the FAST Act include:

- Provisions that will help accelerate the delivery of needed highway improvement projects by strengthening the U.S. Department of Transportation's (DOT) leadership role among other federal agencies in the environmental review process and reducing duplication between the environmental and planning processes;
- Enhanced transparency to demonstrate to the American public how they benefit from federal highway investment by requiring U.S. DOT to show specifically how and where federal funds are utilized by state and project; and
- Reserving highway safety funds exclusively for infrastructure improvements by no longer allowing these resources to be shifted to behavioral and educational activities.

Most notably, the FAST Act fails to address the major challenge facing the highway and public transportation programs—the Highway Trust Fund's permanent structural revenue deficit. Instead of enacting a long-term plan to provide states and the private sector real certainty about future highway and transit investment, members of Congress defaulted to the path of least resistance by providing a one-time transfer of non-transportation resources to the trust fund. As a result, any certainty provided by the FAST Act will be short-lived with another revenue shortfall impacting state construction programs as early as 2019. A permanent solution for the trust fund remains the key focus of ARTBA's efforts going forward.

The following pages provide an in depth review of these provisions and other components of the FAST Act.

The "Fixing America's Surface Transportation Act," reauthorizes the federal highway and public transportation programs for fiscal years (FY) 2016-2020 and helps stabilize the Highway Trust Fund during that five-year period.

HIGHWAY PROGRAM FUNDING



It includes \$225.2 billion from the HTF for highway investment, a \$20.2 billion increase over five years compared to maintaining FY 2015 funding. About half of the increase, or \$10.7 billion, will support two new proposed initiatives—a National Freight Program and a program of Nationally Significant Freight and Highway Projects. The remainder will provide small annual increases in core highway program funding.

Of the \$225.2 billion total, \$207.4 billion will be apportioned among the states by formula. States use these funds for highway and bridge improvements authorized by the main highway programs such as the National Highway Performance Program, the new Surface Transportation Block Grant Program, and a few others. The apportionment formulas are set by Congress.

The remaining \$17.8 billion will fund a handful of additional programs that are either run directly by the federal government, are for research and development programs, fund Federal Highway Administration (FHWA) administrative expenses, or finance competitive grants to state and local governments under programs administered by the Secretary of Transportation.

An additional \$1.05 billion is authorized from the general fund, as opposed to the HTF, for significant projects on federal or tribal lands and for the Appalachian Regional Highway Development program.

Funding details by program and year are shown in Table 1:

TABLE 1

Highway Program Funding under the "Fixing America's Surface Transportation Act" (FAST Act)

Program Authorizations	FY2015	FY2016 /2	FY2017	FY2018	FY2019	FY2020	5-Year Total
Apportioned Programs, Trust Fund, Total	37,798,000,000	39,727,500,000	40,547,805,000	41,424,020,075	42,358,903,696	43,373,294,311	207,431,523,082
Estimated Split Among Programs:							
National Highway Performance Program	21,908,178,122	22,320,399,020	22,838,846,067	23,286,164,073	23,746,271,804	24,253,567,928	116,445,248,892
Surface Transportation Program	10,077,074,081						
Surface Transportation Block Grant Program /1		10,266,682,752	10,505,152,116	10,710,904,354	10,922,539,464	11,155,879,753	
Highway Safety Improvement Program	2,192,406,423	2,227,791,101	2,279,763,304	2,323,919,129	2,369,480,418	2,420,227,245	11,621,181,197
Railway-Highway Crossings Program	220,000,000	225,000,000	230,000,000	235,000,000	240,000,000	245,000,000	1,175,000,000
Congestion Mitigation and Air Quality Improvement	2,266,889,602	2,382,609,044	2,431,805,851	2,484,355,796	2,540,424,317	2,601,261,175	12,440,456,183
Metropolitan Planning Program	313,551,772	329,557,861	336,362,668	343,631,274	351,386,563	359,801,399	1,720,739,765
National Freight Program /1		1,140,460,222	1,090,874,995	1,190,045,449	1,338,801,130	1,487,556,811	6,247,738,606
Transportation Alternatives Program	819,900,000	835,000,000	835,000,000	850,000,000	850,000,000	850,000,000	4,220,000,000
Other Programs, Trust Fund, Total	3,197,000,000	3,372,500,000	3,457,295,000	3,549,191,925	3,648,692,304	3,730,797,689	17,758,476,918
TIFIA	1,000,000,000	275,000,000	275,000,000	285,000,000	300,000,000	300,000,000	1,435,000,000
Federal Lands and Tribal Transportation Programs							
Tribal Transportation Program	450,000,000	465,000,000	475,000,000	485,000,000	495,000,000	505,000,000	2,425,000,000
Federal Lands Transportation Program	300,000,000	335,000,000	345,000,000	355,000,000	365,000,000	375,000,000	1,775,000,000
Federal Lands Access Program	250,000,000	250,000,000	255,000,000	260,000,000	265,000,000	270,000,000	1,300,000,000
Territorial and Puerto Rico Highway Program	190,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	1,000,000,000
Nationally Significant Freight and Highway Projects		800,000,000	850,000,000	900,000,000	950,000,000	1,000,000,000	4,500,000,000
Emergency Relief	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000
Research, Technology and Education Authorizations							
Highway Research and Development Program	115,000,000	125,000,000	125,000,000	125,000,000	125,000,000	125,000,000	625,000,000
Technology & Innovation Development Program	62,500,000	67,000,000	67,500,000	67,500,000	67,500,000	67,500,000	337,000,000
Training and Education	24,000,000	24,000,000	24,000,000	24,000,000	24,000,000	24,000,000	120,000,000
Intelligent Transportation Systems	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000
University Transportation Centers Program	72,500,000	72,500,000	75,000,000	75,000,000	77,500,000	77,500,000	377,500,000
Bureau of Transportation Statistics	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	130,000,000
Construction of Ferry Boats and Terminal Facilities	67,000,000	80,000,000	80,000,000	80,000,000	80,000,000	80,000,000	400,000,000
FHWA Administration	440,000,000	453,000,000	459,795,000	466,691,925	473,692,304	480,797,689	2,333,976,918
Total Contract Authority, Trust Fund	40,995,000,000	43,100,000,000	44,005,100,000	44,973,212,000	46,007,596,000	47,104,092,000	225,190,000,000
Obligation Limitation	40,256,000,000	42,361,000,000	43,266,100,000	44,234,212,000	45,268,596,000	46,365,092,000	221,495,000,000
Exempt Contract Authority	739,000,000	739,000,000	739,000,000	739,000,000	739,000,000	739,000,000	3,695,000,000
Total Obligation Authority, Trust Fund	40,995,000,000	43,100,000,000	44,005,100,000	44,973,212,000	46,007,596,000	47,104,092,000	225,190,000,000
Additional Authorizations, General Fund, Total /1	140,000,000	210,000,000	210,000,000	210,000,000	210,000,000	210,000,000	1,050,000,000
Nationally Significant Federal Lands & Tribal Projects	30,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000
Appalachian Regional Development	110,000,000	110,000,000	110,000,000	110,000,000	110,000,000	110,000,000	550,000,000

^{1:} New program created by FAST Act



"The five-year FAST Act will provide much-needed predictability and stability for public agencies charged with planning transportation improvement projects. ARTBA's efforts were outstanding. A long-term bill would not have happened if ARTBA and its allies had not kept the heat on Congress and the President to get the job done."

-Mike Hancock, secretary, Kentucky Transportation Cabinet

^{2:} Includes amounts provided under MAP-21 extensions for FY 2016

APPORTIONMENTS AMONG THE STATES



The FAST Act will provide every state a 5.1 percent increase in formula funds in FY 2016. This is followed by annual increases ranging from 2.1 percent in FY 2017 to 2.4 percent in FY 2020-increases that will more than offset the effect of projected inflation during those years. Table 2 shows the apportionment among the states of the \$207.4 billion of formula funds under the FAST Act, as provided by the U.S. Department of Transportation (DOT). The figures in this table do not include the \$17.8 billion that are not apportioned by formula.

Note that the totals in the state apportionment table for each year are \$3.5 million less each year than the annual apportionment totals in the first table. This represents a decrease for safety-related programs.



"Focused. Persistent.
Unwavering. Those are some of the words that come to mind to describe ARTBA's singular push to complete action in 2015 on a long-term highway and transit bill. The credible and comprehensive information prepared by ARTBA's government affairs team in the run up to the final passage of the FAST Act was invaluable to the engineering community."

-**Paul Yarossi**, president, HNTB Holdings Ltd., New York City

TABLE 2

Comparison of Actual FY2015 Apportionments under the Highway and Transportation Funding Act of 2014, as Amended, and Estimated FY2016-FY2020 Apportionments under the Conference Report for H.R. 22 (FAST Act)

(before post-apportionment setasides; before penalties; before sequestration)

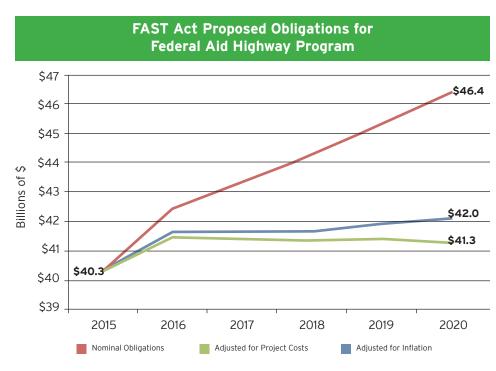
Alabama		Actual	Est.	Est.	Est.	Est.	Est.	FY 2016 to 2020	FY 2016 to 2020
Alabama	State								
Alraska 483,955,039 508,614,600 519,117,557 503,336,270 542,306,539 555,294,332 2,655,668,218 776,064,064 777,076 504,742,248 773,682,221 791,329,101 810,161 63,875,131,431 77,026,288 Arkanasa 499,714,166 525,175,061 536,020,027 547,604,161 559,963,932 573,374,836 2,742,136,017 548,427,030 500,477,713 519,981,396 332,001,196 3,966,194,75 4,046,323 14,439,194,47 3,878,385,599 500,1607,000 516,112,999 542,412,699 553,613,557 565,577,241 573,343,213 592,194,216 2,832,141,526 566,428,330 500,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,100,100 516,1		<u>: : 20:0</u>	<u> </u>	<u> </u>	1. 20.0	1.120.0	<u> </u>	1000	71101090
Arkzona 706,182,083 742,166,457,756,91 586,000,027 547,641,61 559,633,92 573,438 2,742,138,01 75,542,628,03	Alabama	732,263,043	769,571,910	785,463,731	802,438,701	820,550,261	840,202,114	4,018,226,717	803,645,343
Arkaness	Alaska	483,955,039	508,614,600	519,117,557	530,336,370	542,306,359	555,294,332	2,655,669,218	531,133,844
California	Arizona	706,182,063	742,166,445	757,492,248	773,862,621	791,329,101	810,281,016	3,875,131,431	775,026,286
Colorado	Arkansas	499,714,166	525,175,061	536,020,027	547,604,161	559,963,932	573,374,836	2,742,138,017	548,427,603
Delaware 163,676 171,7567,491	California	3,542,468,412	3,723,001,547	3,799,881,396	3,882,001,196	3,969,619,475	4,064,689,233	19,439,192,847	3,887,838,569
Delaware 163,267,361 171,587,491 175,190,787 178,915,587 182,953,041 187,335,451 895,922,120 179,184,825 180,010,010 180,0	Colorado	516,112,989	542,412,699	553,613,557	565,577,841	578,343,213	592,194,216	2,832,141,526	566,428,305
Dist. of Col. 154,002,708 161,850,034 165,192,283 168,762,270 172,671,324 176,704,316 845,080,197 169,016,039 Floridal 1,886,880,021 1,246,238,772 1,309,738,819 1,336,786,115 1,365,675,824 1,396,498,194 1,429,945,392 6,838,647,044 1,367,729,409 Hawaii 163,244,192 117,1562,379 175,105,158 178,889,407 182,927,038 187,006,045 1885,792,024 179,159,406 16daho 276,061,294 290,127,632 296,118,707 302,518,228 309,346,239 316,754,938 1,514,865,644 302,973,129 118,1061,1061,1061,1061,1061,1061,1061,1	Connecticut	484,770,705	509,473,713	519,994,372	531,232,092	543,222,256	556,232,120	2,660,154,553	532,030,911
Florida	Delaware	163,267,961	171,587,491	175,130,787	178,915,587	182,953,804	187,335,451	895,923,120	179,184,624
Georgia 1,246,238,772 1,398,738,819 1,335,786,115 1,365,675,624 1,396,499,894 1,429,945,332 6,838,647,044 1,367,729,409 1,484,941,192 179,158,406 1,484,941,192 179,158,406 1,484,941,192 1,484,94	Dist. of Col.	154,002,708	161,850,034	165,192,253	168,762,270	172,571,324	176,704,316	845,080,197	169,016,039
Hawaii	Florida	1,828,689,002	1,921,860,645	1,961,547,473	2,003,939,263	2,049,169,471	2,098,246,272	10,034,763,124	2,006,952,625
Illinois	Georgia		1,309,739,819	1,336,786,115	1,365,675,824	1,396,499,894	1,429,945,392	6,838,647,044	1,367,729,409
Illinois	Hawaii	163,244,192	171,562,378	175,105,158	178,889,407	182,927,036	187,308,045	895,792,024	179,158,405
Inclinan	Idaho		290,127,532	296,118,707	302,518,228	309,346,239	316,754,938	1,514,865,644	302,973,129
Indiana	Illinois								1,506,008,846
Iowa	Indiana								
Kansas 364,737,489 383,221,318 391,236,875 399,692,143 408,713,444 418,501,959 2,001,465,839 400,239,168 Kentucky 641,292,458 673,966,179 687,896,4265 702,750,338 718,611,920 736,822,382 3,510,935,684 703,807,137 1,724,301 711,927,496 726,628,943 742,332,405 759,087,323 777,267,157 3,717,243,324 743,448,665 181,440,440,440,440,440,440,440,440,440,44	Iowa								
Louisiana (677,413,014 711,927,486 726,628,943 742,332,405 759,087,323 777,267,157 3,717,243,324 743,448,665 178,143,958,141 195,543,308 Maryland 580,007,300 695,563,599 622,151,114 635,596,566 649,942,279 665,508,023 3,182,761,860 636,552,316 Massachusetts 588,191,765 616,064,316 628,786,048 642,374,865 656,873,544 672,605,261 3,216,704,034 643,340,807 616,207,628 1,067,989,869 1,090,043,951 1,115,601,188 1,166,007,899 5,576,378,610 1,115,276,722 Minnesota 629,372,872 661,441,891 675,100,754 689,690,575 705,257,282 722,147,855 3,453,638,357 690,727,671 1,185,859) 466,803,812 490,568,787 500,718,610 511,539,831 523,561,3291 2,561,545,214 512,399,043 Missouri 913,719,741 960,274,903 980,104,758 1,001,286,170 1,023,885,822 1,048,407,455 5,013,959,108 1,002,791,822 Montana 386,007,464 416,184,959 424,779,247 433,959,302 443,754,023 454,381,336 2,173,059,277 43,611,835 808,422,546 368,332,024 376,938,098 384,062,585 392,731,061 402,136,745 1,530,862,199 300,172,440 New Hampshire 159,469,843 167,595,715 171,065,684 174,753,337 114,618,607,616 1,192,320,0513 384,640,103 New Hampshire 159,469,843 167,595,715 171,065,684 174,753,337 147,4128 406,686,276 1,944,957,336 388,91,587 New York 1,620,088,460 1,102,792,050 1,1037,762,182 1,775,365,392 1,118,1436,141 1,858,914,699 8,891,587 North Datota 239,621,802 251,831,249 277,309,809 1,1376,938,075 1,750,861,114 1,858,914,699 8,890,175,086,759 1775,086,847 1,775,353 174,428 406,686,276 1,944,957,336 388,91,587 North Datota 239,621,802 251,831,249 277,301 86,864,455 1,775,353 11,131,430,614 1,858,914,699 8,890,175,084 1,776,935,001 1,237,739,008 1,359,663,237 1,367,450,759,205 1,1037,703,650 1,449,730,162 1,484,450,429 7,093,315,462 1,1779,933 600,800 1,233,739,008 1,359,663,237 1,367,464 1,775,353 11,474,170 1,484,450,429 7,594,349 1,144,145,450 1,144,145 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,14	Kansas	364,737,489	383,321,318	391,236,975	399,692,143	408,713,444	418,501,959	2,001,465,839	400,293,168
Louisiana (677,413,014 711,927,486 726,628,943 742,332,405 759,087,323 777,267,157 3,717,243,324 743,448,665 178,143,958,141 195,543,308 Maryland 580,007,300 695,563,599 622,151,114 635,596,566 649,942,279 665,508,023 3,182,761,860 636,552,316 Massachusetts 588,191,765 616,064,316 628,786,048 642,374,865 656,873,544 672,605,261 3,216,704,034 643,340,807 616,207,628 1,067,989,869 1,090,043,951 1,115,601,188 1,166,007,899 5,576,378,610 1,115,276,722 Minnesota 629,372,872 661,441,891 675,100,754 689,690,575 705,257,282 722,147,855 3,453,638,357 690,727,671 1,185,859) 466,803,812 490,568,787 500,718,610 511,539,831 523,561,3291 2,561,545,214 512,399,043 Missouri 913,719,741 960,274,903 980,104,758 1,001,286,170 1,023,885,822 1,048,407,455 5,013,959,108 1,002,791,822 Montana 386,007,464 416,184,959 424,779,247 433,959,302 443,754,023 454,381,336 2,173,059,277 43,611,835 808,422,546 368,332,024 376,938,098 384,062,585 392,731,061 402,136,745 1,530,862,199 300,172,440 New Hampshire 159,469,843 167,595,715 171,065,684 174,753,337 114,618,607,616 1,192,320,0513 384,640,103 New Hampshire 159,469,843 167,595,715 171,065,684 174,753,337 147,4128 406,686,276 1,944,957,336 388,91,587 New York 1,620,088,460 1,102,792,050 1,1037,762,182 1,775,365,392 1,118,1436,141 1,858,914,699 8,891,587 North Datota 239,621,802 251,831,249 277,309,809 1,1376,938,075 1,750,861,114 1,858,914,699 8,890,175,086,759 1775,086,847 1,775,353 174,428 406,686,276 1,944,957,336 388,91,587 North Datota 239,621,802 251,831,249 277,301 86,864,455 1,775,353 11,131,430,614 1,858,914,699 8,890,175,084 1,776,935,001 1,237,739,008 1,359,663,237 1,367,450,759,205 1,1037,703,650 1,449,730,162 1,484,450,429 7,093,315,462 1,1779,933 600,800 1,233,739,008 1,359,663,237 1,367,464 1,775,353 11,474,170 1,484,450,429 7,594,349 1,144,145,450 1,144,145 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,144 1,145,450,14	Kentucky								
Maryland 580,007,300 609,563,599 622,151,114 635,596,565 649,942,279 665,508,023 3,182,761,580 636,552,316 Massachusetts 586,191,765 616,064,316 628,786,048 642,374,865 656,873,544 672,605,261 3,216,704,034 643,340,807 Michigan 1,016,207,628 1,067,999,869 1,090,043,951 1,113,601,188 1,138,735,743 1,166,007,859 5,576,378,610 1,115,275,722 Minnesota 629,972,872 661,441,891 675,100,754 689,690,575 705,257,282 722,147,855 3,453,638,357 690,727,671 Mississippi 466,803,812 490,567,875 507,118,610 511,539,831 533,6813,291 2,561,545,145 123,090,043 Missouri 913,719,741 960,274,903 990,104,758 1,001,286,153,682 1,048,407,455 5,013,959,108 1,002,791,822 Montana 396,007,464 416,184,959 424,779,247 433,959,302 443,754,023 454,381,739 2,173,059,267 434,611,853 Nebraska 278,976,662 293,191,186 299,245,632 305,712,735 312,612,654 320,099,792 1,530,862,199 306,172,440 New Hampshire 159,469,843 167,595,715 171,056,584 174,753,337 178,697,613 182,977,330 875,090,579 175,016,116 New Jersey 963,682,664 1,012,792,050 1,033,706,218 1,056,045,847 1,079,881,265 1,105,743,762 5,288,169,142 1,057,633,828 New Mexico 354,439,590 372,488,916 309,191,084 388,407,532 397,174,128 406,686,276 1,944,979,36 389,15,87 North Carolina 1,000,630,450 1,057,922,552 1,079,762,828 1,105,703,510 1,128,001,186 1,155,016,778 5,238,813,313 1,104,762,539 1,293,739,008 1,293,739,008 1,395,663,237 1,377,740,399 1,417,731,351 1,418,004,949 1,389,91,597 1,493,450,499 1,293,739,008 1,395,663,237 1,377,740,399 1,417,731,531 1,417,753,317 1,417,753,411 1,817,042,511 8,689,91,133 1,493,650,512 1,493,450,429 1,494,450,429 7,099,315,462 1,419,863,092 1,419,863,092 1,293,739,008 1,393,663,337 1,367,740,399 1,417,773,537 1,417,450,431 1,417,450,437 1,417,450,431 1,417,450,439 1,419,450,449 1,419,450	Louisiana	677,413,014	711,927,496	726,628,943	742,332,405	759,087,323	777,267,157		743,448,665
Maryland 580,007,300 609,563,599 622,151,114 635,596,565 649,942,279 665,508,023 3,182,761,580 636,552,316	Maine	178,165,560	187,243,965	191,110,574	195,240,722	199,647,412	204,428,868	977,671,541	195,534,308
Michigan	Maryland								
Minnesota 629,372,872 661,441,891 675,100,754 689,690,575 705,257,282 722,147,855 3,453,638,357 690,727,671	Massachusetts	586,191,765	616,064,316	628,786,048	642,374,865	656,873,544	672,605,261	3,216,704,034	643,340,807
Minnesota 629,372,872 661,441,891 675,100,754 689,690,575 705,257,282 722,147,855 3,453,638,357 690,727,671	Michigan	1,016,207,628	1,067,989,869	1,090,043,951	1,113,601,188	1,138,735,743	1,166,007,859	5,576,378,610	1,115,275,722
Missispipi 468,803,812 490,587,875 500,718,610 511,539,831 523,085,607 535,613,291 2,581,545,214 512,309,043 Missouri 913,719,741 960,274,903 980,104,768 1,001,286,170 1,023,885,822 1,048,407,455 5,013,959,108 1,002,791,822 Montana 396,007,464 416,184,959 424,779,247 433,959,302 443,754,023 454,381,736 2,173,059,267 434,611,853 Nebraska 276,976,662 293,191,186 299,246,632 305,712,735 312,612,654 320,099,792 1,530,862,199 306,172,440 New Hampshire 159,469,843 167,595,715 171,056,558 174,753,337 178,697,613 182,977,330 875,080,579 175,016,116 168,045,847 1,079,881,265 1,105,743,762 5,288,169,142 1,076,633,828 1,080,980 324,349,900 372,489,916 380,191,084 388,047,586,322 3,97,174,128 406,686,276 1,444,957,936 388,991,575,084 1,778,035,017 New York 1,620,088,460 1,702,649,572 1,737,809,280 1,755,365,392 1,815,436,14	Minnesota								
Montana 396,007.464 416,184,959 424,779,247 433,959,302 443,754,023 454,381,736 2,173,059,267 434,611,853	Mississippi								
Montana 396,007,464 416,184,959 424,779,247 433,959,302 443,754,023 454,381,736 2,173,059,267 434,611,853	Missouri	913,719,741	960,274,903	980,104,758	1,001,286,170	1,023,885,822	1,048,407,455	5,013,959,108	1,002,791,822
Nevalda 350,472,546 368,332,024 375,938,098 384,062,585 392,731,061 402,136,745 1,923,200,513 384,640,103 New Hampshire 159,469,843 167,595,715 171,056,584 174,753,337 178,697,613 182,977,330 875,080,579 175,016,116 170,084,000,000 1,033,706,218 1,056,045,847 1,079,881,265 1,105,743,762 5,288,189,142 1,057,633,828 New Mexico 354,439,590 372,498,916 380,191,084 388,407,532 397,174,128 406,668,276 1,944,957,936 388,991,587 New York 1,620,088,460 1,702,649,572 1,737,809,280 1,775,365,392 1,815,436,141 1,856,914,699 8,890,175,084 1,778,035,017 North Carolina 1,006,630,450 1,057,922,052 1,079,768,287 1,103,103,510 1,128,001,186 1,155,016,278 5,523,811,313 1,104,762,263 North Dakota 239,621,802 251,831,294 257,031,648 262,586,445 268,513,174 274,943,940 1,314,906,501 262,981,300 Ohio 1,293,739,008 1,359,663,237 1,387,740,399 1,417,731,235 1,449,730,162 1,484,450,429 7,099,315,462 1,419,863,092 Oregon 482,423,497 507,004,353 517,474,070 528,667,381 540,589,488 553,536,361 2,647,261,653 529,462,331 Pennsylvania 1,583,603,275 1,664,296,550 1,698,664,445 1,735,374,776 1,774,543,112 1,817,042,511 8,689,921,394 1,737,984,279 Rhode Island 211,081,927 221,837,373 226,418,345 231,311,545 236,532,377 242,197,215 1,158,296,855 231,669,371 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 145,836,003 352,225,393 359,498,902 367,268,156 375,576,141 384,552,048 1,024,762,438 10,0	Montana	396,007,464	416,184,959	424,779,247		443,754,023	454,381,736	2,173,059,267	434,611,853
New Hampshire 159,469,843 167,595,715 171,056,584 174,753,337 178,697,613 182,977,330 875,080,579 175,016,116 New Jersey 963,682,664 1,012,792,050 1,033,706,218 1,056,045,847 1,079,881,265 1,105,743,762 5,288,169,142 1,057,633,828 New Mexico 354,439,590 372,498,916 380,191,084 388,0175,363,232 397,174,128 406,686,276 1,944,957,936 388,991,587 New York 1,620,088,460 1,702,649,572 1,737,809,280 1,775,365,392 1,815,436,141 1,858,914,699 8,890,175,084 1,778,035,017 North Dakota 239,621,802 251,831,294 257,031,648 262,586,445 268,513,174 274,943,940 1,314,906,501 262,981,300 Ohio 1,293,739,008 1,359,663,237 1,387,740,399 1,417,731,235 1,449,730,162 1,484,450,429 7,099,315,462 1,419,863,092 Oregon 482,423,497 507,004,353 517,474,070 528,657,381 540,589,488 553,536,361 671,799,336 671,799,336 Oregon <t< th=""><th>Nebraska</th><th>278,976,662</th><th>293,191,186</th><th>299,245,632</th><th>305,712,735</th><th>312,612,854</th><th>320,099,792</th><th>1,530,862,199</th><th>306,172,440</th></t<>	Nebraska	278,976,662	293,191,186	299,245,632	305,712,735	312,612,854	320,099,792	1,530,862,199	306,172,440
New Jersey 963,682,664 1,012,792,050 1,033,706,218 1,056,045,847 1,079,881,265 1,105,743,762 5,288,169,142 1,057,633,828 New Mexico 354,439,590 372,498,916 380,191,084 388,407,532 397,174,128 406,686,276 1,944,957,936 388,991,587 New York 1,620,088,460 1,702,649,572 1,737,809,280 1,775,365,392 1,815,436,141 1,858,914,699 8,890,175,084 1,778,035,017 North Carolina 1,006,630,450 1,057,922,052 1,079,768,287 1,103,103,510 1,128,001,186 1,155,016,278 5,523,811,313 1,104,762,263 North Dakota 239,621,802 251,831,294 257,031,648 262,586,445 268,513,174 274,943,940 1,314,906,501 262,981,300 Ohio 1,293,739,008 1,359,663,237 1,387,740,399 1,417,731,235 1,449,730,162 1,484,450,429 7,099,315,462 1,419,863,092 Oregon 482,423,497 507,004,353 517,474,070 528,657,381 540,589,488 553,536,361 2,647,261,663 529,452,331 Pennsylvania 1,583,603,275 1,664,296,550 1,698,664,445 1,735,374,776 1,774,543,112 1,817,042,511 8,689,921,394 1,737,984,279 South Carolina 646,306,850 679,236,584 693,262,955 708,245,330 724,230,875 741,575,911 3,546,551,655 709,310,331 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,165,013,341,450 352,253,333 359,498,902 367,268,156 375,576,14 384,552,048 1,839,102,113 367,820,423 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,915,129 214,893,226 Vermont 982,800,403 762,229,980 779,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,025,541 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,000 1,356,834,636 271,366,927 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,000 1,356,834,636 271,366,927 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,000 1,356,834,636 271,366,927 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,000 1,356,834,636 271,366,927	Nevada	350,472,546	368,332,024	375,938,098	384,062,585	392,731,061	402,136,745	1,923,200,513	384,640,103
New Mexico 354,439,590 372,498,916 380,191,084 388,407,532 397,174,128 406,686,276 1,944,957,936 388,991,587 New York 1,620,088,460 1,702,649,572 1,737,809,280 1,775,365,392 1,815,436,141 1,858,914,699 8,890,175,084 1,778,035,017 North Carolina 1,006,630,450 1,057,922,052 1,079,768,287 1,103,103,510 1,128,001,186 1,155,016,278 5,523,811,313 1,104,762,263 North Dakota 239,621,802 251,831,294 257,031,648 262,586,445 268,513,174 274,943,940 1,314,906,501 262,981,300 Ohio 1,293,739,008 1,359,663,237 1,387,740,399 1,417,731,235 1,449,730,162 1,484,450,429 7,099,315,462 1,419,863,092 Oregon 482,423,497 507,004,353 517,474,070 528,657,381 540,589,488 553,536,361 2,647,261,653 529,452,331 Pennsylvania 1,583,603,275 1,664,296,550 1,698,664,445 213,737,76 1,774,543,112 1,817,042,511 8,689,921,394 1,737,984,279 Rhode I	New Hampshire	159,469,843	167,595,715	171,056,584	174,753,337	178,697,613	182,977,330	875,080,579	175,016,116
New York	New Jersey	963,682,664	1,012,792,050	1,033,706,218	1,056,045,847	1,079,881,265	1,105,743,762	5,288,169,142	1,057,633,828
North Carolina	New Mexico	354,439,590	372,498,916	380,191,084	388,407,532	397,174,128	406,686,276	1,944,957,936	388,991,587
North Dakota 239,621,802 251,831,294 257,031,648 262,586,445 268,513,174 274,943,940 1,314,906,501 262,981,300 Ohio 1,293,739,008 1,359,663,237 1,387,740,399 1,417,731,235 1,449,730,162 1,484,450,429 7,099,315,462 1,419,863,092 Oklahoma 612,127,810 643,315,998 656,600,603 670,790,656 685,930,829 702,358,595 3,358,996,681 671,799,336 Oregon 482,423,497 507,004,353 517,474,070 528,657,381 540,589,488 553,536,361 2,647,261,653 529,452,331 Pennsylvania 1,583,603,275 1,664,296,550 1,698,664,445 1,735,374,776 1,774,543,112 1,817,042,511 8,689,921,394 1,737,984,279 Rhode Island 211,081,927 221,837,373 226,418,345 231,311,545 236,532,377 242,197,215 1,158,296,855 231,659,371 South Carolina 646,306,850 679,236,584 693,262,955 708,245,330 724,230,875 741,575,911 3,546,551,655 709,310,331 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 Texas 3,331,596,800 350,1354,175 3,573,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,916,129 214,983,226 Virginia 982,180,040 1,032,226,472 1,053,542,076 1,076,310,501 1,100,603,428 1,126,962,342 5,389,644,819 1,077,928,964 Washington 654,304,963 687,644,962 701,844,910 717,012,693 733,196,062 750,755,744 3,590,454,371 718,090,874 West Virginia 421,797,542 443,288,929 452,442,922 462,20,829 472,653,435 483,973,279 2,314,579,394 462,915,879 Wisconsin 726,226,098 763,229,980 778,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,022,541 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,020 1,356,834,636 271,366,927	New York	1,620,088,460	1,702,649,572	1,737,809,280	1,775,365,392	1,815,436,141	1,858,914,699	8,890,175,084	1,778,035,017
Ohio 1,293,739,008 1,359,663,237 1,387,740,399 1,417,731,235 1,449,730,162 1,484,450,429 7,099,315,462 1,419,863,092 Oklahoma 612,127,810 643,315,998 656,600,603 670,790,656 685,930,829 702,358,595 3,358,996,681 671,799,336 Oregon 482,423,497 507,004,353 517,474,070 528,657,381 540,589,488 553,536,361 2,647,261,653 529,452,331 Pennsylvania 1,583,603,275 1,664,296,550 1,698,664,445 1,735,374,776 1,774,543,112 1,817,042,511 8,689,921,394 1,737,984,279 Rhode Island 211,081,927 221,837,373 226,418,345 231,311,545 236,532,377 242,197,215 1,158,296,855 231,659,371 South Carolina 646,306,850 679,236,584 693,262,955 708,245,330 724,230,875 741,575,911 3,546,551,655 709,310,331 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Texas 3,331,5	North Carolina	1,006,630,450	1,057,922,052	1,079,768,287	1,103,103,510	1,128,001,186	1,155,016,278	5,523,811,313	1,104,762,263
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Oregon 482,423,497 507,004,353 517,474,070 528,657,381 540,589,488 553,536,361 2,647,261,653 529,452,331 Pennsylvania 1,583,603,275 1,664,296,550 1,698,664,445 1,735,374,776 1,774,543,112 1,817,042,511 8,689,921,394 1,737,984,279 Rhode Island 211,081,927 221,837,373 226,418,345 231,311,545 236,532,377 242,197,215 1,158,296,855 231,659,371 South Carolina 646,306,850 679,236,584 693,262,955 708,245,330 724,230,875 741,575,911 3,546,551,655 709,310,331 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 Texas 3,331,596,800 3,501,354,175 3,673,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Usermont 1	Ohio	1,293,739,008	1,359,663,237	1,387,740,399	1,417,731,235	1,449,730,162	1,484,450,429	7,099,315,462	1,419,863,092
Pennsylvania 1,583,603,275 1,664,296,550 1,698,664,445 1,735,374,776 1,774,543,112 1,817,042,511 8,689,921,394 1,737,984,279 Rhode Island 211,081,927 221,837,373 226,418,345 231,311,545 236,532,377 242,197,215 1,158,296,855 231,659,371 South Carolina 646,306,850 679,236,584 693,262,955 708,245,330 724,230,875 741,575,911 3,546,551,655 709,310,331 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 Texas 3,331,596,800 3,501,354,175 3,573,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Utah 335,148,600 352,225,393 359,498,902 367,268,156 375,557,614 384,552,048 1,839,102,113 367,820,423 Virginia 982	Oklahoma	612,127,810	643,315,998	656,600,603	670,790,656	685,930,829	702,358,595	3,358,996,681	671,799,336
Rhode Island 211,081,927 221,837,373 226,418,345 231,311,545 236,532,377 242,197,215 1,158,296,855 231,659,371 South Carolina 646,306,850 679,236,584 693,262,955 708,245,330 724,230,875 741,575,911 3,546,551,655 709,310,331 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 Texas 3,331,596,800 3,501,354,175 3,573,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Utah 335,148,600 352,225,393 359,498,902 367,268,156 375,557,614 384,552,048 1,839,102,113 367,820,423 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,916,129 214,983,226 Wirginia 982,180,040	Oregon	482,423,497	507,004,353	517,474,070	528,657,381	540,589,488	553,536,361	2,647,261,653	529,452,331
South Carolina 646,306,850 679,236,584 693,262,955 708,245,330 724,230,875 741,575,911 3,546,551,655 709,310,331 South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 Texas 3,331,596,800 3,501,354,175 3,573,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Utah 335,148,600 352,225,393 359,498,902 367,268,156 375,557,614 384,552,048 1,839,102,113 367,820,423 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,916,129 214,983,226 Wirginia 982,180,040 1,032,226,472 1,053,542,076 1,076,310,501 1,100,603,428 1,126,962,342 5,389,644,819 1,077,928,964 West Virginia 421,797,5	Pennsylvania	1,583,603,275	1,664,296,550	1,698,664,445	1,735,374,776	1,774,543,112	1,817,042,511	8,689,921,394	1,737,984,279
South Dakota 272,190,802 286,059,805 291,966,983 298,276,779 305,009,059 312,313,885 1,493,626,511 298,725,302 Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 Texas 3,331,596,800 3,501,354,175 3,573,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Utah 335,148,600 352,225,393 359,498,902 367,268,156 375,557,614 384,552,048 1,839,102,113 367,820,423 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,916,129 214,983,226 Virginia 982,180,040 1,032,226,472 1,053,542,076 1,076,310,501 1,100,603,428 1,126,962,342 5,389,644,819 1,077,928,964 West Virginia 421,797,542 443,288,929 452,442,922 462,220,829 472,653,435 483,973,279 2,314,579,394 462,915,879 Wisconsin 726,226,908 <th>Rhode Island</th> <th>211,081,927</th> <th>221,837,373</th> <th>226,418,345</th> <th>231,311,545</th> <th>236,532,377</th> <th>242,197,215</th> <th>1,158,296,855</th> <th>231,659,371</th>	Rhode Island	211,081,927	221,837,373	226,418,345	231,311,545	236,532,377	242,197,215	1,158,296,855	231,659,371
Tennessee 815,605,297 857,163,013 874,863,555 893,770,525 913,943,445 935,831,968 4,475,572,506 895,114,501 Texas 3,331,596,800 3,501,354,175 3,657,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Utah 335,148,600 352,225,393 359,498,902 367,268,156 375,557,614 384,552,048 1,839,102,113 367,820,423 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,916,129 214,983,226 Virginia 982,180,040 1,032,226,472 1,053,542,076 1,076,310,501 1,100,603,428 1,126,962,342 5,389,644,819 1,077,928,964 West Virginia 421,797,542 443,288,929 452,442,922 462,220,829 472,653,435 483,973,279 2,314,579,394 462,915,879 Wisconsin 726,226,908 763,229,980 778,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,022,541 Wyoming 247,262,623	South Carolina		679,236,584	693,262,955	708,245,330	724,230,875	741,575,911	3,546,551,655	709,310,331
Texas 3,331,596,800 3,501,354,175 3,573,657,617 3,650,889,094 3,733,291,741 3,822,702,306 18,281,894,933 3,656,378,987 Utah 335,148,600 352,225,393 359,498,902 367,268,156 375,557,614 384,552,048 1,839,102,113 367,820,423 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,916,129 214,983,226 Virginia 982,180,040 1,032,226,472 1,053,542,076 1,076,310,501 1,100,603,428 1,126,962,342 5,389,644,819 1,077,928,964 Washington 654,304,963 687,644,962 701,844,910 717,012,693 733,196,062 750,755,744 3,590,454,371 718,090,874 West Virginia 421,797,542 443,288,929 452,442,922 462,220,829 472,653,435 483,973,279 2,314,579,394 462,915,879 Wisconsin 726,226,908 763,229,980 778,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,022,541 Wyoming 247,262,623	South Dakota	272,190,802		291,966,983		305,009,059	312,313,885	1,493,626,511	298,725,302
Utah 335,148,600 352,225,393 359,498,902 367,268,156 375,557,614 384,552,048 1,839,102,113 367,820,423 Vermont 195,886,832 205,868,282 210,119,484 214,660,438 219,505,440 224,762,485 1,074,916,129 214,983,226 Virginia 982,180,040 1,032,226,472 1,053,542,076 1,076,310,501 1,100,603,428 1,126,962,342 5,389,644,819 1,077,928,964 Washington 654,304,963 687,644,962 701,844,910 717,012,693 733,196,062 750,755,744 3,590,454,371 718,090,874 West Virginia 421,797,542 443,288,929 452,442,922 462,220,829 472,653,435 483,973,279 2,314,579,394 462,915,879 Wisconsin 726,226,908 763,229,980 778,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,022,541 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,020 1,356,834,636 271,366,927	Tennessee								
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Virginia 982,180,040 1,032,226,472 1,053,542,076 1,076,310,501 1,100,603,428 1,126,962,342 5,389,644,819 1,077,928,964 Washington 654,304,963 687,644,962 701,844,910 717,012,693 733,196,062 750,755,744 3,590,454,371 718,090,874 West Virginia 421,797,542 443,288,929 452,442,922 462,220,829 472,653,435 483,973,279 2,314,579,394 462,915,879 Wisconsin 726,226,908 763,229,980 778,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,022,541 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,020 1,356,834,636 271,366,927	Utah	, ,						_ , , , ,	, ,
Washington 654,304,963 687,644,962 701,844,910 717,012,693 733,196,062 750,755,744 3,590,454,371 718,090,874 West Virginia 421,797,542 443,288,929 452,442,922 462,220,829 472,653,435 483,973,279 2,314,579,394 462,915,879 Wisconsin 726,226,908 763,229,980 778,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,022,541 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,020 1,356,834,636 271,366,927	Vermont								
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Wisconsin 726,226,908 763,229,980 778,990,803 795,825,845 813,788,109 833,277,970 3,985,112,707 797,022,541 Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,020 1,356,834,636 271,366,927	Washington	654,304,963		, ,		733,196,062			
Wyoming 247,262,623 259,861,381 265,227,558 270,959,481 277,075,196 283,711,020 1,356,834,636 271,366,927	West Virginia		-,,-	- / /-					
	Wisconsin				795,825,845	813,788,109			
Apportioned Total 37,798,000,000 39,724,000,000 40,544,305,000 41,420,520,075 42,355,403,696 43,369,794,311 207,414,023,082 41,482,804,616	Wyoming	247,262,623	259,861,381	265,227,558	270,959,481	277,075,196	283,711,020	1,356,834,636	271,366,927
Apportioned Total 37,798,000,000 39,724,000,000 40,544,305,000 41,420,520,075 42,355,403,696 43,369,794,311 207,414,023,082 41,482,804,616									
	Apportioned Total	37,798,000,000	39,724,000,000	40,544,305,000	41,420,520,075	42,355,403,696	43,369,794,311	207,414,023,082	41,482,804,616

The FAST Act will increase the number of states receiving more than \$1 billion per year in federal highway formula funds from 10 to 14 (28 percent of all states) by FY 2020. This underscores the importance of the federal highway program as all of these funds can only be used for capital improvements. The four new states are: Indiana, Missouri, New Jersey and Virginia.

MARKET IMPACTS



While the FAST Act's total core highway investment increase during its life will be just over 15 percent, yearly assessments are a better gauge of its market impact. As noted earlier, highway investment will jump 5.1 percent in FY 2016 and then slow to rates of growth between 2.1 percent and 2.4 percent for the remaining four years. The chart below shows the investment levels will exceed projected inflation by a total of \$1.7 billion over five years and beat projected construction material cost increases by \$1 billion over the same period. As a result, federal highway investment will see narrow increases in purchasing power through FY 2020, but the FAST Act's biggest impact on the highway construction market will be the stability it provides states and the private sector.



Source: ARTBA analysis of FAST Act. Inflation forecast from CBO's August 2015 report "An Update to the Budget and Economic Outlook: 2015 to 2025." Project costs expected to grow as historical average of 3 percent a year.

HIGHWAY TRUST FUND



The FAST Act provides five years of highway program authorizations, one less than bills passed by both the House and Senate. But it transfers enough resources into the HTF-\$51.9 billion into the Highway Account and \$18.1 billion into the Mass Transit Account—to fund the full five years of program authorizations. This is a significant improvement compared to the House and Senate bills, which generated only enough revenues to guarantee funding for the first three years. The FAST Act also is the longest duration reauthorization of the programs in a decade.

It also includes a provision that will automatically increase authorized highway and public transportation investment if Congress were to pass a subsequent law adding additional revenues to the HTF. It is worth noting that virtually all HTF revenue enhancements in the last 30 years have been part of budget and tax legislation enacted outside of the surface transportation reauthorization process. This provision assures that if such action were to happen again there would be no delay in passing these resources through to needed surface transportation improvements.

Nonetheless, the transfer of money from the general fund into the HTF is only a temporary fix. Without a permanent increase in current trust fund excise taxes or enactment of a new revenue source, the HTF will exhaust the funds provided under the FAST Act by the end of FY 2020. Furthermore, because the underlying HTF revenue deficit has not been addressed, the current \$14 billion annual shortfall between incoming trust fund revenues and the amount needed to support authorized surface transportation investment levels will grow to \$19 billion over the next five years without remedial action by Congress. The Congressional Budget Office estimates Congress will need to find over \$100 billion in additional HTF revenues to fund the next five year authorization bill from FY 2021 through FY 2025. Furthermore, if the past several years of trust fund revenue shortfalls are any guide, we could see states beginning to scale back planned projects well before the FAST Act expires!

HIGHWAY PROGRAM STRUCTURE

The FAST Act retains the highway program structure enacted in the 2012 Moving Ahead for Progress in the 21st Century (MAP-21) surface transportation law with only a few major additions or changes.

National Highway Performance Program (NHPP). The NHPP is the most significant highway program, focusing on maintaining and improving the Interstate Highway System and other major highways designated as part of the National Highway System. The program receives 63.7 percent of formula funds remaining after funding is provided for the Congestion Mitigation & Air Quality (CMAQ) Program, metropolitan planning and national freight programs. The new law will add two permissible uses for NHPP funds: to pay subsidy and administrative costs for TIFIA projects and for improvements to bridges that are not on the National Highway System.

Surface Transportation. The FAST Act expands the existing Surface Transportation Program (STP) into a "Surface Transportation Block Grant Program (STBGP)" based on the thought that most of the benefits of STP funds accrue locally and that decisions about how such funds are obligated should be determined by state and local governments, which can best respond to unique local circumstances and implement the most efficient solutions. It rewrites and simplifies the list of uses eligible for program funds and increases the ways that STP funds can be used for local roads and rural minor collectors. The new program still requires that a fraction of program funds be distributed within each state on the basis of population, and the fraction subject to this requirement grows from 50 percent in 2015 under the existing STP program to 55 percent in FY 2020 and thereafter.

Furthermore, \$835 million to \$850 million of the annual funding for this program is set aside for the transportation alternatives program, which supports a variety of pedestrian, bicycling, and environmental activities. This maintains the same funding for enhancements as in MAP-21. It also requires states to invest the same amount each year in recreational trails as in 2009, although states are able to opt out of the Recreational Trails Program. The STBGP block grant program receives the same 29.3 percent of formula funds as did the STP program under MAP-21.

Congestion Mitigation & Air Quality (CMAQ)

Program. This long-standing program focuses on reducing highway traffic congestion and improving air quality with a particular focus on states and areas that do not meet current air quality standards. The FAST Act makes only a few changes to the CMAQ program: CMAQ funds can be used not only for attainment of ambient air quality standards, but also to maintain standards in an attainment area; the diesel retrofit program is expanded to include port-related off-road equipment and vehicles; and low-population-density states are exempt from PM 2.5 attainment requirements if the non-attainment area has no projects that are part of a transportation plan and vehicles are an insignificant contributor to PM 2.5 non-attainment. The CMAQ program receives the same share of formula funds as applied under MAP-21.

Highway Safety Improvement Program (HSIP). It achieves a long-time ARTBA policy objective by ending the ability of states to shift funds designated for infrastructure safety projects to behavioral or educational activities, ensuring resources remain in construction-related programs. It also designates several new safety improvements eligible for funding including vehicle-to-infrastructure communication and roadway improvements that provide separation between pedestrians and motor vehicles.

With regards to unpaved roads, the FAST Act allows states to "opt out" of collecting safety inventory data for unpaved/gravel roads if certain conditions are met, as long as the states continue to collect data related to serious crashes and fatalities. It also requires the U.S. DOT to review data and report to Congress on best practices for roadway infrastructure improvements that enhance commercial motor vehicle safety. This is in line with an ARTBA project to develop guidance related to the disproportionate number of large truck crashes in work zones.



"Public policy in Washington, D.C., may move at a snail's pace these days. But that has never stopped ARTBA. The national highway freight program and dedicated funding source for it contained in the 2015 highway and transit investment law achieves a goal that ARTBA had been doggedly pushing for since it introduced the 'Critical Commerce Corridors' in 2006."

-Mike Walton, E.H. Cockrell Centennial Chair in Engineering, University of Texas

Transportation Alternatives. MAP-21 combined the Transportation Enhancement Program, Safe Routes to School and the Recreational Trails Program into a comprehensive Transportation Alternatives Program. The most significant FAST Act modification to this program changes its funding from 2 percent of annual apportionments (about \$820 million per year) to a flat \$835 million in FY 2016 and FY 2017 and then to \$850 million per year thereafter. The FAST Act also expands eligible recipients for funds to include nonprofits responsible for administration of local transportation safety programs and requires annual reports from state and local planning organizations on the number of project applications and awards.

The FAST Act's two new initiatives are:

National Freight Program. The FAST Act transforms the National Freight Policy provisions of MAP-21 into a new program that funds freight-related highway improvements. ARTBA has called for the creation of a dedicated freight program since 2006 when it released the "Critical Commerce Corridors" proposal. The new law authorizes a five-year total of \$6.2 billion for the program. Funds are apportioned among the states by formula, but states must establish a freight advisory committee and develop a state freight investment plan before obligating any funds. Under the proposal, the Secretary of Transportation and the states will designate a "National Freight Network" comprised of the Interstate highways and their "Critical Urban Freight Corridors" and their "Critical Rural Freight Corridors" that are key to the safe and efficient shipment of freight. The national and state networks will be updated every five years. Program funds will be directed under national and state strategic plans to projects that improve highway freight transportation.

States will be able to obligate up to 10 percent of their freight program funds for improvements to freight rail or ports, statutorily breaking a long-standing practice against opening up HTF resources to modes of transportation other than highways and public transportation. It should also be noted that freight rail companies and shippers do not contribute to the HTF and the port community has its own separate federal trust fund.

Nationally Significant Freight and Highway Projects **Program.** This program will provide an average of \$900 million per year in grants of at least \$25 million for highway, bridge, rail-grade crossing, intermodal and freight rail projects costing more than \$100 million that improve movement of both freight and people, increase competitiveness, reduce bottlenecks, and improve intermodal connectivity. Projects will be awarded competitively by the Secretary of Transportation based on specified criteria. At least 25 percent of the funds must be spent in rural areas, and the federal share of project costs will be 60 percent. While the program allows HTF resources to be diverted to freight rail projects, it will impose a \$500 million limitation on the total amount that can be awarded over the next five years to freight and intermodal projects. It also reserves 10 percent of the annual grant awards for projects that do not meet the program's cost threshold. The Secretary of Transportation must report all grant awards to Congress, which will have 60 days to reject a project by joint resolution.

ACCELERATED PROJECT DELIVERY



The FAST Act builds upon MAP-21's improvements to the project delivery process by expanding opportunities for their use in addition to creating additional reforms aimed at reducing delay.

Reduction of Duplication. The FAST Act focuses on reducing duplicative efforts throughout the environmental review process in multiple ways. First, the law requires "to the maximum extent practicable" the combination of a final environmental impact statement (EIS) and record of decision into a single document. As both types of documents can often be quite voluminous, eliminating one is a significant reduction in paperwork. It also allows, and encourages, the use of a single environmental review document throughout the entire process and among multiple agencies, as opposed to the current practice of having each agency conduct separate reviews.

Further, the FAST Act expands on combining the transportation planning and National Environmental Policy Act (NEPA) environmental review processes "to the maximum extent practicable and appropriate." For transportation projects, an extensive amount of information is gathered during the planning process, which often occurs prior to the actual triggering of NEPA review

requirements. This allows information gathered during the planning process, to the extent it is still current and relevant, to satisfy NEPA requirements, limiting duplicative reviews and reducing the amount of delay in the NEPA process. Additionally, alternatives to proposed transportation projects analyzed and rejected during the planning process do not need to be re-analyzed during NEPA review.

It also prevents regulatory issues that have been resolved early in the process to be raised again later. Any such issue that has been resolved by the lead agency with the concurrence of the participating agencies cannot be re-examined unless "significant new information or circumstances arise." Unfortunately, what exactly constitutes "significant new information or circumstances" is not addressed in the statute, but could be addressed later via guidance or regulation. If the phrase is not clarified, there could be an opportunity for litigation.

Deadlines. The FAST Act adds to MAP-21's efforts to use deadlines to reduce delay in the transportation project review and approval process. Specifically, it creates the following:

- A 45-day deadline from the beginning of the environmental review process to identify all participating agencies;
- A 45-day deadline for the receipt of a project application for U.S. DOT to decide whether or not the environmental review process may be initiated;
- A 45-day deadline for U.S. DOT to respond to a request to designate a specific modal administration as lead agency (this deadline may be extended up to an additional 45 days if new information is received); and
- A 90-day deadline from the beginning of the environmental review process to develop a coordination plan to obtain comments from participating agencies.

Categorical Exclusions. The FAST Act also continues MAP-21's expansion of the use of categorical exclusions (CEs). Currently, according to the FHWA, CEs account for more than 90 percent of transportation project reviews. Despite being the least burdensome form of environmental review, CEs can still take more than a year to complete.

The new law allows the use of programmatic agreements to process CEs as a group, rather than on a case-by-case basis in an effort to

reduce their approval time. This programmatic approach to CEs was a key recommendation of the ARTBA Trans 2020 Reauthorization Task Force, which noted that reducing the amount of time it takes to process CEs could free up resources for more complicated environmental assessment (EA), EIS and permitting decisions.

Programmatic Agreements. The FAST Act encourages the use of "programmatic agreements" during project review and approval by directing U.S. DOT to establish

a programmatic agreement "template," which could be widely used by individual projects. Programmatic agreements are a means of delineating responsibilities at the beginning of the environmental review and approval process. Ideally, programmatic agreements strive to specify clear roles and responsibilities for those involved in the project review and approval process, eliminating or reducing duplication of effort, while also seeking to establish clear expectations for review timeframes and processing options. The FHWA has highlighted the use of programmatic agreements in its

"Every Day Counts" program as an effective tool in reducing project delay.

Once a programmatic agreement is finalized, its terms must be given "substantial weight" by all agencies involved in the review and approval process.

Delegation of Regulatory Responsibilities to States.

The FAST Act expands on past efforts to delegate federal environmental and regulatory responsibilities to states. In order to encourage greater participation in the program, it allows the U.S. DOT to offer training and information-sharing to states not currently utilizing the delegation program.

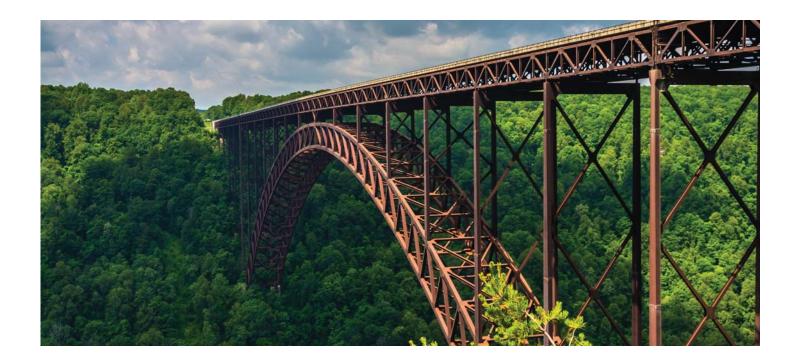
In addition, it creates a delegation pilot program for up to five states currently enrolled in U.S. DOT's NEPA delegation program to substitute their state laws and regulations for NEPA and its associated regulations. Currently, states in the delegation program are administering NEPA in place of the federal government. Under the new program, a state could use its own laws and regulations. States enrolled in this new delegation pilot program may also use their authority over locally administered transportation projects.



"ARTBA doesn't know the meaning of the word 'quit.' The end result of that relentless focus was the December 2015 passage of a long-term highway and transit investment bill that will provide much-needed market stability for the first time in a decade."

-**Ward Nye**, president & CEO, Martin Marietta Materials, Raleigh, N.C.

It also instructs the department "to the maximum extent practicable" to delegate responsibility to states for "project design, plans, specifications, estimates, contract awards, and inspection of projects, both on a project specific and programmatic basis." The new law's use of "to the maximum extent practicable" attempts in the duplication and delegation sections to motivate state and federal agencies to utilize the efficiencies that will be available. It does not require them to do so and it is unclear how or if such language is enforceable.



Coordination of Agency Reviews. The FAST Act also directs U.S. DOT, in coordination with other federal agencies likely to have review or permitting authority over transportation projects, to develop guidelines for conducting coordinated project reviews. Coordinated reviews allow for multiple regulatory processes to occur at the same time as opposed to one-after-the-other, reducing delay. Additionally, it directs U.S. DOT to develop an "environmental checklist" for transportation projects to be used when a lead agency and participating agencies set project review schedules.

Historic Preservation Requirements. The new law simplifies historical preservation and mitigation requirements. The Secretary of Transportation is allowed to determine that no practical alternative exists when a project might impact a historical resource. When such a determination is made, there will no longer be a need for any further alternatives analysis.

Bridge Repair Projects. The FAST Act seeks to streamline the environmental review process for bridge repair projects by exempting "common post 1945 concrete or steel bridge[s] or culvert[s]" from individual review. This was actually done through regulation by FHWA in 2012, but the new law makes the change permanent. Also, it loosens requirements under the Migratory Bird Treaty Act for repairs made to bridges in "serious" condition (as classified by U.S. DOT's Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges) or worse.

Transparency in the Environmental Review Process.

The FAST Act expands upon the current federal Permitting Dashboard, which is a website the public can access to track the review process for nationally or regionally significant projects, by creating a website allowing the public to track the process of all transportation projects requiring either an EIS or EA.

Expediting or Exempting Regulatory Requirements in Emergency Situations. Building upon the creation of a CE for emergency situations in MAP-21, the new law provides further exemptions and expedited regulatory procedures for "any road, highway, railway, bridge or transit facility that is damaged by an emergency." Specifically, regulatory requirements under the federal Clean Water Act, Endangered Species Act, National Historic Preservation Act, and Migratory Bird Treaty Act are either required to be expedited or exempted in order to speed repair of critical infrastructure during emergency situations.

TIFIA AND INNOVATIVE FINANCING

Transportation Infrastructure Finance and Innovation Act (TIFIA). The FAST Act will cut annual investment for the TIFIA credit assistance program from the \$1 billion per year authorized in FY 14 and FY 15 to the following levels:

FY 2016: \$275 million
FY 2017: \$275 million
FY 2018: \$285 million
FY 2019: \$300 million
FY2020: \$300 million

While this reduction is likely the result of the FAST Act's revenue constraints rather than opposition to the TIFIA Program, it should be noted the FHWA was required to transfer \$639 million in TIFIA funds to the highway formula programs on April 27, 2015, because TIFIA's uncommitted balance exceeded the statutory limit Congress imposed as part of MAP-21. Moreover, the FAST Act eliminates that mandatory redistribution of uncommitted balances, ensuring all resources allocated to the TIFIA program are reserved only for that activity.

At the same time, it will allow more diversification of the TIFIA program's portfolio by expanding or facilitating the eligibility for several types of projects. These include projects associated with transit-oriented development, located in rural areas, smaller in scale (i.e. less than \$75 million), or administered by local governments.

The TIFIA section also provides a new streamlined process for applicants using conventional loan terms from the program, as established by U.S. DOT. To be eligible, the requested TIFIA loan must by \$100 million or less, secured and payable from pledged revenues not affected by project performance, with repayment beginning within five years. In addition, the new law establishes increased funding levels for U.S. DOT's administration of the TIFIA program.

It also clarifies that availability payments made by states under certain P3 concession models are eligible for federal reimbursement.

National Surface Transportation and Innovative Finance Bureau. The FAST Act establishes this new entity within U.S. DOT, with an executive director to be selected through a competitive process with presidential approval. In this provision, Congress charges the new bureau with:



"What differentiates ARTBA from other industry groups is the creativity and innovative thinking it brings to the transportation advocacy arena. The association continually pushes the envelope with

unique funding proposals, cutting-edge economic reports and analyses, and attentiongetting advertising on multiple platforms. It's a formula for public policy success."

-**David Zachry**, president & CEO, Zachry Corporation, San Antonio, Texas

- providing state and local transportation agencies with assistance and best practices relating to project financing and funding, particularly including innovative financing;
- administering the application process for competitive grant and loan programs such as those for Nationally Significant Freight and Highway Projects (NSFHP) and TIFIA, and allocation of private activity bonds (PABs);
- reducing uncertainty and delays in environmental reviews and project permitting, through coordinating with other federal agencies, offering technical assistance and tracking NEPA-related reviews and decisions; and
- promoting best practices and tracking developments in project procurement "to reduce costs and risks to taxpayers."

This section also empowers the Secretary of Transportation to eliminate or consolidate offices within U.S. DOT to eradicate redundancies and realize savings.

Finally, the FAST Act establishes a Council on Credit and Finance, chaired by the Deputy Secretary of Transportation and comprised of senior U.S. DOT and modal officials. The Council is to review and recommend applications for project grants and loans as described above. This formalizes an existing entity within U.S. DOT that had been created by administrative action.

OTHER NOTABLE PROVISIONS

Hours of Service and Motor Carrier Operators. The new law widens a current exemption to the hours of service rule for interstate drivers of commercial motor vehicles used for construction. The new law allows those operating within a 75-mile radius to restart their work week after 24 hours of rest, rather than 34 hours, which is the standard for other drivers. (The previous allowable radius was 50 miles.) However, a state may establish its own radius between 50 and 75 miles for intrastate operation of these construction vehicles.

It also codifies a recent regulatory exemption for drivers of ready mix concrete delivery vehicles, through which they are exempt from many requirements of the hours of service rule, provided they meet certain conditions as to radius of operation, on-duty time and drive time.

Within four years after the FAST Act takes effect, U.S. DOT is to provide a report to Congress on the safety and enforcement impacts of these and other hours of service exemptions in the new law.

It also directs the U.S. DOT to convene a task force and establish a pilot program enabling certain veterans or armed forces reserve members between 18 and 21 years of age to operate commercial motor vehicles under various restrictions.

DBE Program. The FAST Act reauthorizes the current provisions of the Disadvantaged Business Enterprise (DBE) program. It adjusts the annual gross receipts limit for eligible DBE firms to \$23.98 million consistent with recent inflation-based adjustments, and maintains the requirement for future annual adjustments as well.

The DBE section also includes a "sense of Congress" offered by Rep. Gwen Moore (D-Wis.), directing the U.S. DOT to "take additional steps" and ensure that state departments of transportation are complying with existing rules requiring prompt payment to DBE firms. U.S. DOT is also instructed to track complaints on this issue and make this information available publicly.

 Highway Trust Fund Transparency. The new law requires semi-annual reports to be published on the Internet with detailed data on the use of federal highway funds. Data will be provided by the states on the use of funds from each highway program, with details on all federally-funded highway projects, including cost, type of improvement, location and project ownership.

existing portions of the Interstate Highway System as part of a pilot project created in 1998 are now required to move forward with those projects within one year after the law takes effect, including submitting a final application, completing the NEPA process and executing a toll agreement with U.S. DOT. A state may request a one-year extension if it is making substantial progress on those tasks. Otherwise a state's "slot" under the pilot program will expire. Similarly, states that receive new, provisional approval under this pilot program will have three years to complete those requirements or request a one-year extension.

Several other tolling-related provisions of the FAST Act enable certain privately-owned bus services to utilize toll facilities under similar terms as public transit vehicles.

- Bundling of Bridges. States are authorized and encouraged to bundle multiple similar bridge projects into one project that can be awarded as a single contract to improve efficiency and expedite project delivery.
- Every Day Counts Program. The FAST Act instructs the FHWA to continue its Every Day Counts program, developing a new collection of market-ready innovations and best practices at least every two years.
- Work Zone Safety. Despite ARTBA-supported directives included in MAP-21 for the FHWA to develop regulations to protect roadway construction workers from motorist intrusions into work zones, the agency has not promulgated the new rules. The FAST Act directs the FHWA "to move rapidly to finalize regulations" and "do all within its power to protect workers in highway work zones."
- Roadside Safety Hardware. Finally, to ensure roadway safety hardware continues to function properly, even years after initial installation, the FAST Act directs FHWA to conduct a study to obtain more inventory information on existing roadside safety devices.

HIGHWAY RESEARCH, TECHNOLOGY AND EDUCATION AUTHORIZATIONS

The FAST Act will continue most MAP-21 provisions dealing with the federal highway research, technology and education programs with only a few significant changes. Major provisions include:

Funding. Most of the highway research, technology and training programs will receive either the same annual funding as during FY 2015 or small increases.

Advanced Technology Deployment. The FAST Act expands the scope of the Innovative Pavement Research and Deployment Program by requiring the Secretary to develop a program to stimulate deployment of advanced transportation technologies to improve system safety, efficiency and performance. Grants could be used for advanced traveler information systems, advanced transportation management technologies, advanced public transportation systems, and advanced safety systems including vehicle-to-vehicle communications, among others. Federal share will be 50 percent and awards could total up to \$60 million per year.

Intelligent Transportation System (ITS) Program Goals.

The new law expands the list of ITS program goals to include enhancement of the national freight system and support to national freight policy goals.

Use of ITS Program Funds. The FAST Act specifies that ITS funds for operational tests may not be used for construction of physical surface transportation infrastructure unless the construction is incidental and critically necessary to implement an ITS project.

Assistant Secretary and Duties. The new law creates a new "Assistant Secretary for Research and Technology." It also expands the list of explicit responsibilities of the Secretary of Transportation to include coordination of departmental research and development activities, advancement of innovative technologies, development of comprehensive statistics and data, and coordination of multimodal and multidisciplinary research, among others. The FAST Act also provides that the Secretary may enter into cooperative contracts with other federal, state and local agencies, and others to carry out departmental research on a 50/50 cost-sharing basis.

Research and Innovative Technology Administration.

It repeals the section of the U.S. Code establishing the Transportation Department's Research and Technology Administration, thus moving responsibility for transportation research and technology into the Office of the Secretary. It also eliminates the Office of Intermodalism in the Research and Technology Administration.

University Transportation Centers (UTC). The FAST Act continues the University Transportation Centers program with a few changes. Funding will increase from \$72.5 million in FY 2015 to \$77.5 million by FY 2019. Funding for the three UTC levels will be flexible within ranges rather than a fixed amount as under MAP-21, including \$2 million to \$4 million for the five National Transportation Center consortia; \$1.5 million to \$3.0 million for the 10 Regional Transportation Center consortia; and \$1 million to \$2 million for the Tier I centers. Selection of centers remains competitive and decisions are made by the Transportation Secretary, the new Assistant Secretary for Research and Technology and the FHWA Administrator. The Federal Transit Administration Administrator is no longer involved. Matching requirements remain as under MAP-21.

Transportation Funding Alternatives. The new law directs the Secretary to make grants to states to demonstrate alternative user-based revenue mechanisms that could maintain the long-term solvency of the HTF. The goal is to test at least two alternative user-based revenue mechanisms and to provide recommendations for adoption and implementation at the federal level. Funding will be up to \$15 million in FY 2016 and \$20 million per year thereafter, and the federal share will be 50 percent.

Future Interstate System. The FAST Act provides for a \$5 million study by the Transportation Research Board that focuses on the actions needed to restore the Interstate System as a premier system that meets the growing and shifting demands of the 21st century, with a report due in three years.

PUBLIC TRANSPORTATION



The FAST Act substantially boosts public transportation investment from the current \$10.7 billion to \$12.6 billion by FY 2020. Total public transportation authorizations grow by 17.8 percent over its life. Of particular note to the transportation construction industry, the FAST Act increases transit capital investment grants from \$1.9 billion in FY 2015 to \$2.3 billion in FY 2016 (a 21 percent increase) and this level of investment is maintained through FY 2020. It should be pointed out, however, the transit capital grant program is supported by federal general funds—as opposed to HTF resources—and final investment decisions are made in the annual appropriations process. If this new increased funding level is met each year, it will mark a 21 percent increase in capital funding for transit projects above the current mark.

The new law includes language allowing up to eight transit capital projects that are part of a public-private partnership to be considered for fast-track approval process as long as the projects receive less than 25 percent of funding from the federal program. This builds on a similar pilot program created in MAP-21 that allowed for three projects receiving less than 50 percent federal funds to receive the expedited approval process.

It also contains \$200 million for Positive Train Control upgrades—a rail safety capital technology program being mandated at the federal level with the intent of cutting down on train crashes. The funds for this initiative come from the HTF's Mass Transit Account. Table 3 depicts the specific programmatic and yearly public transportation investment levels that will be provided.



"No other industry group worked harder than ARTBA to get the FAST Act across the finish line. The new transportation law is a significant public policy achievement for the engineering community

and is a testament to ARTBA's effectiveness in the Nation's Capital."

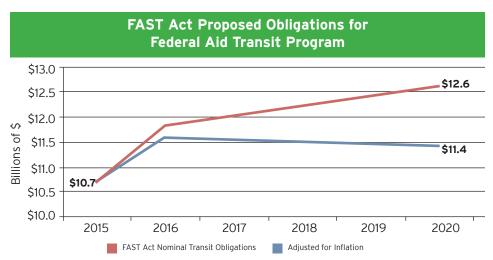
-**Matt Cummings**, executive vice president, AECOM, Philadelphia, Pa.

TABLE 3

Public Transportation Program Funding under the "Fixing America's Surface Transportation Act" (FAST Act)

Program Authorizations	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	5-Year Total
Authorizations - Trust Fund							
Formula Grants, Total	8,595,000,000	9,347,604,639	9,534,706,043	9,733,353,407	9,939,380,030	10,150,348,462	48,705,392,581
Urbanized Area Formula Grants	4,458,650,000	4,538,905,700	4,629,683,814	4,726,907,174	4,827,117,606	4,929,452,499	23,652,066,793
State of Good Repair Grants	2,165,900,000	2,507,000,000	2,549,670,000	2,593,703,558	2,638,366,859	2,683,798,369	12,972,538,786
Bus and Facilities Formula Grants	427,800,000	427,800,000	436,356,000	445,519,476	454,964,489	464,609,736	2,229,249,701
Formula Grants for Rural Areas	607,800,000	619,956,000	632,355,120	645,634,578	659,322,031	673,299,658	3,230,567,387
Growing and High Density State Formula Grants	525,900,000	536,261,539	544,433,788	552,783,547	561,315,120	570,032,917	2,764,826,911
Formula Grants for Enhanced Mobility of Seniors and Individuals with Disabilities	258,300,000	262,949,400	268,208,388	273,840,764	279,646,188	285,574,688	1,370,219,428
Metropolitan Planning	128,800,000	130,732,000	133,398,933		139,087,757	142,036,417	681,455,417
Transit Oriented Planning	10,000,000	10,000,000	10,000,000		10,000,000	10,000,000	
Pilot Program for Innovative Accesss and Mobility		2,000,000	3,000,000	3,250,000	3,500,000	3,500,000	
Research, Development, Demo and Deployment Program		28,000,000	28,000,000	28,000,000	28,000,000	28,000,000	140,000,000
Tech Assistance and Development		4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
Bus Testing Facility	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
National Transit Institute	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000
National Transit Database	3,850,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
Bus Competitive Grants & Low Emissions Grants		268,000,000	283,600,000	301,514,000	322,059,980	344,044,179	1,519,218,159
Research, Development, Demonstration	on						
and Deployment Program	70,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	100,000,000
Tech Assistance and Training	7,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000
Authorizations - General Fund							
Capital Investment Grants	1,907,000,000	2,301,785,760	2,301,785,760	2,301,785,760	2,301,785,760	2,301,785,760	11,508,928,800
Administration	104,000,000	115,016,543	115,016,543	115,016,543	115,016,543	115,016,543	575,082,715
Total Authorizations	10,683,000,000	11,789,406,942	11,976,508,346	12,175,155,710	12,381,182,333	12,592,150,765	60,914,404,096

Similar to the FAST Act's highway investments, its public transportation investment levels will see a significant 10.4 percent increase in FY 2016, followed by annual increases of 1.6 percent to 1.7 percent over the subsequent four years. These investment levels exceed projected inflation by a total of \$700 million over the next five years. (See chart to the right.)



Source: ARTBA analysis of FAST Act. Inflation forecast from CBO's August 2015 report "An Update to the Budget and Economic Outlook: 2015 to 2025."