FHWA FY 2018 BUDGET

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FEDERAL HIGHWAY ADMINISTRATION (FHWA)
FISCAL YEAR 2018 BUDGET

BUDGET SUMMARY OVERVIEW

FHWA requests $45.0 billion for fiscal year (FY) 2018 to maintain and improve the safety, condition, and performance of our national highway system, and enable FHWA to provide effective stewardship and oversight of highway programs and funding.

This request, which reflects the third year of the Fixing America's Surface Transportation (FAST) Act, will enable FHWA to further streamline project delivery while investing in projects that improve roadway safety, repair aging bridges and highways, and promote the movement of freight. Further, the budget will provide States and localities flexible funding that will empower recipients to invest in the projects that best meet local needs while improving the performance of the national infrastructure network.

Safety continues to be FHWA's top priority. In 2015, 35,092 people died in motor vehicle crashes on our nation's highways. Through a data-driven and performance-based strategic approach, this request will focus on reducing traffic fatalities and serious injuries on all public roads.

This request will enable FHWA to preserve and modernize the National Highway System (NHS). The NHS is composed of 220,000 miles of rural and urban roads serving major population centers, border crossings, intermodal transportation facilities, and major travel destinations. This includes the Interstate System, all principal arterials, intermodal connectors, and roads important to mobility, commerce, national defense, and intermodal connectivity.

FHWA will advance nationally significant freight projects that will improve the safety, efficiency, and reliability of the movement of freight and people. Through the advancement of construction ready projects, FHWA will enhance our Nation's freight movement.

FHWA's request provides flexibility to States and localities to target funding to priority areas and areas of greatest need. Funding is available for the approximately 1,000,000 miles of the Federal-aid highway system. This includes projects to expand, improve, or preserve condition and performance on any Federal-aid highway; bridge and safety projects on any public road; and facilities for non-motorized transportation.

FHWA also will improve access to and within Federal and Tribal lands. These projects will provide multimodal access to basic community services for Federally-recognized sovereign Tribes, improve multimodal access to recreational areas on public lands, and expand economic development and transportation accessibility in and around Federal and Tribal lands.

Furthermore, this request will ensure that investment continues in other vital areas such as emergency relief following disasters or catastrophic failures, metropolitan planning, highway programs in Puerto Rico and United States Territories, transportation research, innovative technology deployment, and intelligent transportation systems.

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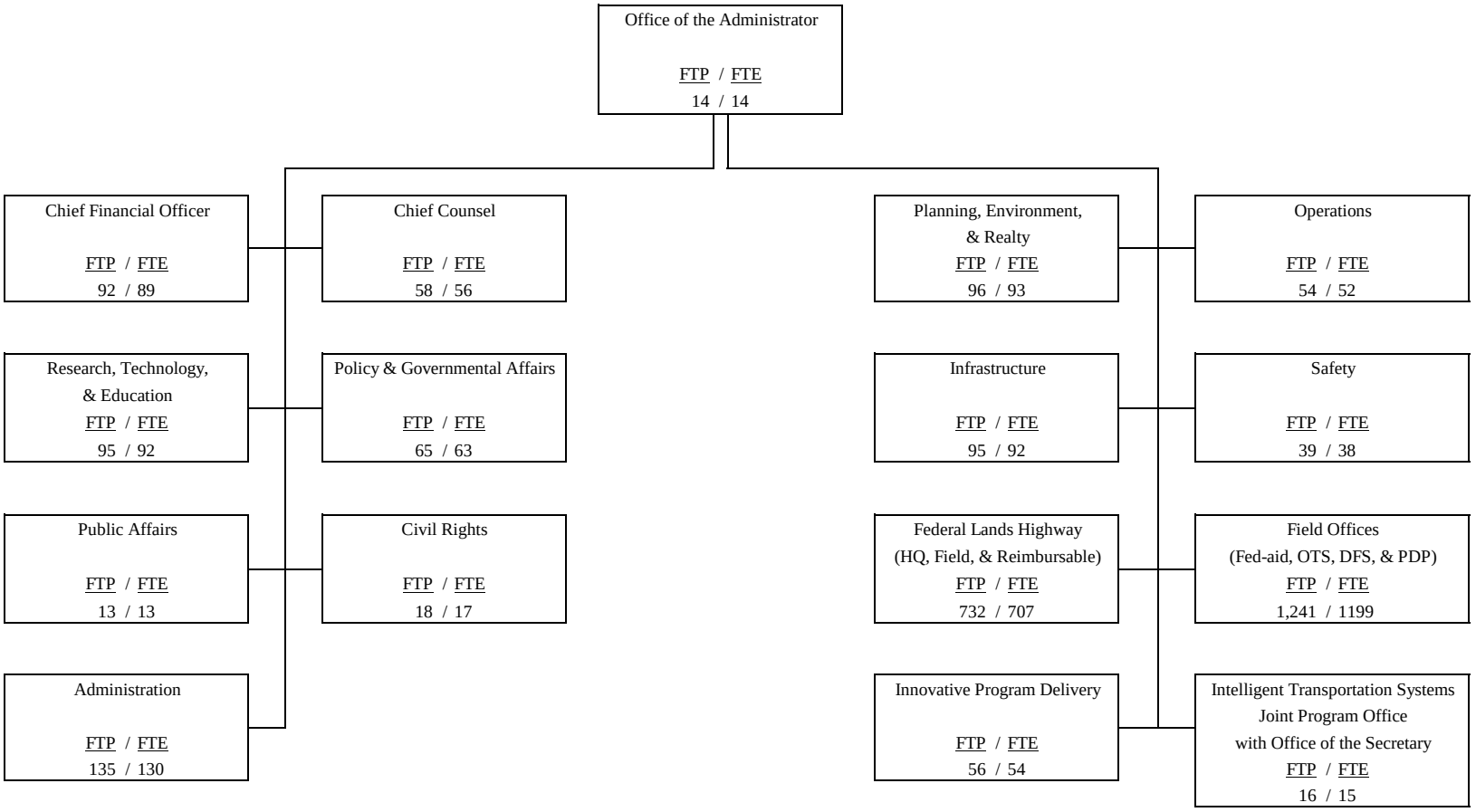
EXHIBIT I-A

FEDERAL HIGHWAY ADMINISTRATION ORGANIZATION CHART
FY 2017 ESTIMATED FTP BY OFFICE AND ESTIMATED FTE BY OFFICE



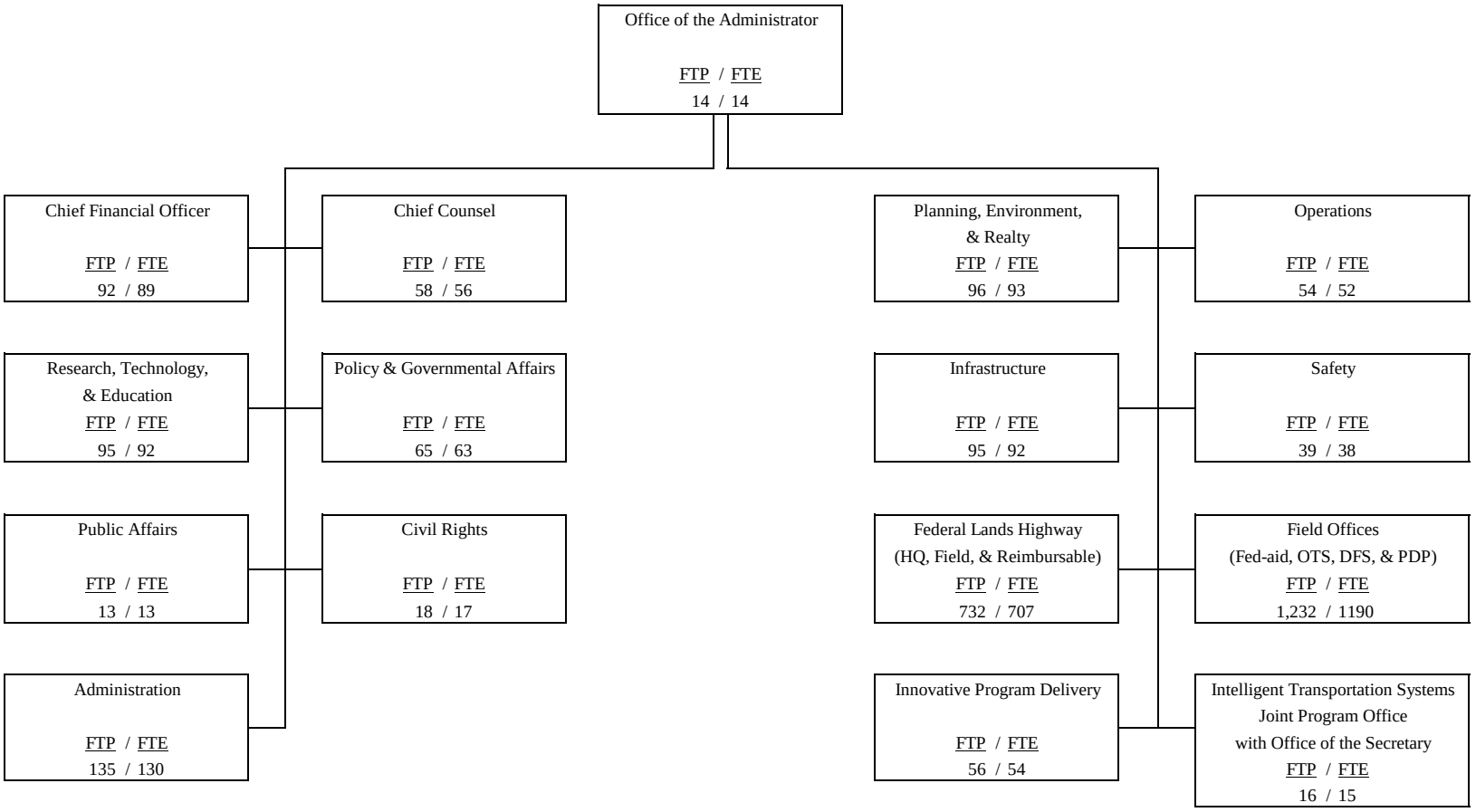
FTP - FULL-TIME PERMANENT POSITIONS	
Direct funded	2,573
Indirect funded	246
Total	2,819

FTE - FULL-TIME EQUIVALENTS	
Direct funded	2,486
Indirect funded	246
Total	2,732

Direct funded FTP presented by office reflects an estimated on-board level at fiscal year end, not total positions including vacancies. This is consistent with Exhibit II-9; however, it is different than the presentation in budgets for past fiscal years. Direct funded FTE presented by office reflects an illustrative pro-ration of total FTE. Indirect funded FTP & FTE include Federal Lands Highway reimbursable FTE and allocation FTE from OST.

EXHIBIT I-B

FEDERAL HIGHWAY ADMINISTRATION ORGANIZATION CHART
FY 2018 ESTIMATED FTP BY OFFICE AND ESTIMATED FTE BY OFFICE



FTP - FULL-TIME PERMANENT POSITIONS	
Direct funded	2,564
Indirect funded	246
Total	2,810

FTE - FULL-TIME EQUIVALENTS	
Direct funded	2,477
Indirect funded	246
Total	2,723

Direct funded FTP presented by office reflects an estimated on-board level at fiscal year end, not total positions including vacancies. This is consistent with Exhibit II-9; however, it is different than the presentation in budgets for past fiscal years. Direct funded FTE presented by office reflects an illustrative pro-ration of total FTE. Indirect funded FTP & FTE include Federal Lands Highway reimbursable FTE and allocation FTE from OST.

EXHIBIT II-1
FY 2018 COMPARATIVE STATEMENT OF NEW BUDGET AUTHORITY
FEDERAL HIGHWAY ADMINISTRATION
($000)

ACCOUNT NAME	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2017 ENACTED	FY 2018 REQUEST
[Administrative Expenses (Contract Authority, subject to limitation)] 1/	[429,000]	[435,795]	[435,795]	[442,692]
Federal-aid Highways				
Contract Authority (subject to limitation)	42,361,000	43,266,100	43,266,100	44,234,212
Exempt Contract Authority	739,000	739,000	739,000	739,000
Subtotal, Federal-aid Highways	43,100,000	44,005,100	44,005,100	44,973,212
Flex Transfers to/from FTA	- 1,227,646	- 1,300,000	- 1,300,000	- 1,300,000
Transfer to NHTSA 2/	- 91,041	- 98,639	- 101,241	-----
Sequestered Exempt Contract Authority	- 50,252 3/	- 50,991 4/	- 50,991 4/	-----
Rescission of Emergency Relief Supplemental Appropriations 5/	- 37,400	-----	-----	-----
Rescission of Unobligated Balances of Apportioned Contract Authority	-----	-----	- 857,000 6/	-----
Total, Federal-aid Highways	41,693,661	42,555,470	41,695,868	43,673,212
Miscellaneous Trust Funds (TF)	66,373	36,373	36,373	36,373
Miscellaneous Appropriations (TIFIA Upward Reestimate GF)	215,776	2,187	2,187	-----
TIFIA General Fund Program Account Upward Reestimate (GF)	39,984	3,440	3,440	-----
Emergency Relief (GF)	-----	1,004,017	1,532,017 7/	-----
General Fund Payment to the Highway Trust Fund 8/	70,000,000	-----	-----	-----
Transfer from the Leaking Underground Storage Tank Trust Fund	100,000	93,100 9/	93,100 9/	100,000
TOTALS	**112,115,794**	**43,694,587**	**43,362,985**	**43,809,585**

[ ] Non-add

1/ FY 2016 and FY 2017 include FHWA General Operating Expenses (GOE) and transfers to the Appalachian Regional Commission (ARC) for administrative activities associated with the Appalachian development highway system. FY 2018 includes FHWA GOE. All fiscal years do not include amounts for other non-administrative programs authorized under Administrative Expenses.
2/ FHWA anticipates transfer to NHTSA in FY 2018 in an amount to be determined based on State penalty information.
3/ Reflects sequestration of 6.8 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 2, 2015.
4/ Reflects sequestration of 6.9 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 9, 2016.
5/ Public Law 114-223 rescinded $37.4 million from the available unobligated balances provided under Section 108 of Public Law 101-130.
6/ Public Law 115-31 rescinded $857 million from the available unobligated balances of apportioned contract authority.
7/ Public Law 114-254 provided $1,004 million for the Emergency Relief Program. Public Law 115-31 provided $528 million for the Emergency Relief Program. Both amounts are available until expended.
8/ FY 2016 payment to the Highway Trust Fund comprised of $51.9 billion to the Highway Account and $18.1 billion to the Mass Transit Account.
9/ FY 2017 transfer from the Leaking Underground Storage Tank Trust Fund reduced from $100 million by 6.9 percent sequestration per Sequestration Order dated February 9, 2016.

EXHIBIT II-2
FY 2018 TOTAL BUDGETARY RESOURCES BY APPROPRIATION ACCOUNT
FEDERAL HIGHWAY ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ACCOUNT NAME	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2017 ENACTED	FY 2018 REQUEST
[Limitation on Administrative Expenses] 1/	[429,000]	[428,184]	[435,795]	[442,692]
Federal-aid Highways				
(Liquidation of contract authorization)	(43,100,000)	(43,019,472)	(44,005,100)	(44,973,212)
(Limitation on obligations)	(42,361,000)	(42,280,472)	(43,266,100)	(44,234,212)
Exempt Contract Authority 2/	739,000	739,000	739,000	739,000
Subtotal, Federal-aid Obligation Limitation & Exempt CA	43,100,000	43,019,472	44,005,100	44,973,212
Flex Transfers to/from FTA	- 1,227,646	-1,300,000	-1,300,000	-1,300,000
Transfer to NHTSA 3/	-91,041	-98,639	-101,241	-----
Total, Federal-aid Obligation Limitation & Exempt CA	41,781,313	41,620,833	42,603,859	43,673,212
Emergency Relief (GF)	-----	1,004,017	1,532,017 4/	-----
Total, Federal Highway Administration				
(Limitation on obligations)	(41,042,313)	(40,881,833)	(41,864,859)	(42,934,212)
Exempt Contract Authority	739,000	739,000	739,000	739,000
Disaster Relief Funds (GF)	-----	1,004,017	1,532,017	-----
Total Budgetary Resources, FHWA	**41,781,313**	**42,624,850**	**44,135,876**	**43,673,212**

[ ] Non-add

1/ FY 2016 and FY 2017 include FHWA General Operating Expenses (GOE) and transfers to the Appalachian Regional Commission (ARC) for administrative activities associated with the Appalachian development highway system. FY 2018 includes FHWA GOE. All fiscal years do not include amounts for other non-administrative programs authorized under Administrative Expenses.

2/ FY 2016 does not reflect sequestration of 6.8 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 2, 2015. FY 2017 does not reflects sequestration of 6.9 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 9, 2016.

3/ FHWA anticipates transfer to NHTSA in FY 2018 in an amount to be determined based on State penalty information.

4/ Public Law 114-254 provided $1,004 million for the Emergency Relief Program. Public Law 115-31 provided $528 million for the Emergency Relief Program. Both amounts are available until expended.

EXHIBIT II-3
FY 2018 BUDGET REQUEST BY STRATEGIC GOAL AND OBJECTIVE
FEDERAL HIGHWAYS ADMINISTRATION
Appropriations, Obligation Limitations, & Exempt Obligations

This exhibit is not submitted due to new Strategic Goals and Objectives currently being developed.

EXHIBIT II-4
FY 2018 BUDGET AUTHORITY
FEDERAL HIGHWAY ADMINISTRATION
($000)

ACCOUNT NAME	M / D	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2017 ENACTED	FY 2018 REQUEST
Federal-aid Highways					
Contract Authority (subject to limitation)	Mand.	42,361,000	43,266,100	43,266,100	44,234,212
Exempt Contract Authority	Mand.	739,000	739,000	739,000	739,000
Subtotal for Federal-aid Highways (TF)		43,100,000	44,005,100	44,005,100	44,973,212
Flex Transfers to/from FTA	Mand.	- 1,227,646	- 1,300,000	- 1,300,000	- 1,300,000
Transfer to NHTSA [1/]	Mand.	- 91,041	- 98,639	- 101,241	-----
Sequestered Exempt Contract Authority	Mand.	- 50,252 [2/]	- 50,991 [3/]	- 50,991 [3/]	-----
Rescission of Emergency Relief Supplemental Appropriations [4/]	Discr.	- 37,400	-----	-----	-----
Rescission of Unobligated Balances of Apportioned Contract Authority	Mand.	-----	-----	- 857,000 [5/]	-----
Total, Federal-aid Highways		41,693,661	42,555,470	41,695,868	43,673,212
Miscellaneous Trust Funds (TF)	Mand.	66,373	36,373	36,373	36,373
Miscellaneous Appropriations (TIFIA Upward Reestimate GF)	Mand.	215,776	2,187	2,187	-----
TIFIA General Fund Program Account Upward Reestimate (GF)	Mand.	39,984	3,440	3,440	-----
Emergency Relief (GF)	Discr.	-----	1,004,017	1,532,017 [6/]	-----
General Fund Payment to the Highway Trust Fund	Mand.	70,000,000	-----	-----	-----
Transfer from the Leaking Underground Storage Tank Trust Fund	Mand.	100,000	93,100 [7/]	93,100 [7/]	100,000
TOTALS		**112,115,794**	**43,694,587**	**43,362,985**	**43,809,585**
[Discretionary]		- 37,400	1,004,017	1,532,017	-----
[Mandatory]		112,153,194	42,690,570	41,830,968	43,809,585
PROPRIETARY AND OTHER GOVERNMENTAL RECEIPTS					
Adv from State Coop Agencies, Other Fed Agencies, and Foreign Gov	Mand.	65,964	36,149	36,149	36,149
Adv for Hwy Research Prog, Misc Trust	Mand.	375	205	205	205
Adv from Foreign Gov for Technical Assistance	Mand.	34	19	19	19
Earnings on Investments, Highway Trust Fund	Mand.	123,849	200,000	200,000	150,000
Interest under Cash Management Improvement Act (net)	Mand.	18	-----	-----	-----
TIFIA Downward Reestimates	Mand.	208,035	127,224	127,224	-----
TIFIA Negative Subsidies	Mand.	3,212	-----	-----	-----
General Fund Payment to the Highway Trust Fund (Highway Account)	Mand.	51,900,000	-----	-----	-----
General Fund Payment to the Highway Trust Fund (Mass Transit Account)	Mand.	18,100,000	-----	-----	-----
Transfer from the Leaking Underground Storage Tank Trust Fund	Mand.	100,000	93,100 [7/]	93,100 [7/]	100,000
TOTAL		**70,501,487**	**456,697**	**456,697**	**286,373**

1/ FHWA anticipates transfer to NHTSA in FY 2018 in an amount to be determined based on State penalty information.
2/ Reflects sequestration of 6.8 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 2, 2015.
3/ Reflects sequestration of 6.9 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 9, 2016.
4/ Public Law 114-223 rescinded $37.4 million from the available unobligated balances provided under Section 108 of Public Law 101-130.
5/ Public Law 115-31 rescinded $857 million from the available unobligated balances of apportioned contract authority.
6/ Public Law 114-254 provided $1,004 million for the Emergency Relief Program. Public Law 115-31 provided $528 million for the Emergency Relief Program. Both amounts are available until expended.
7/ FY 2017 transfer from the Leaking Underground Storage Tank Trust Fund reduced from $100 million by 6.9 percent sequestration per Sequestration Order dated February 9, 2016.

EXHIBIT II-5
FY 2018 OUTLAYS
FEDERAL HIGHWAY ADMINISTRATION
($000)

ACCOUNT NAME	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Federal-aid Highways (TF)	43,421,077	41,956,617	42,616,364
Subject to Obligation Limitation	42,583,430	41,162,817	41,815,585
Exempt Contract Authority	830,881	752,694	756,196
Emergency Relief Supplementals	6,766	41,106	44,583
Appalachian Development Highway System (TF)	25	60	11
Miscellaneous Highway Trust Funds (TF)	-----	19,688	22,470
Miscellaneous Trust Funds (TF)	13,768	56,463	61,379
Right of Way Revolving Fund (TF)	-----	4,279	-----
Emergency Relief Program (GF)	326,439	466,622	444,646
Appalachian Development Highway System (GF)	4,819	5,440	3,993
Miscellaneous Appropriations (GF)	27,135	35,689	38,558
Miscellaneous Appropriations (TIFIA upward reestimate GF)	215,776	2,187	-----
Highway Infrastructure Program (GF)	3,421	3,918	2,849
TIFIA General Fund Program Account Upward Reestimate (GF)	39,984	3,440	-----
TIFIA General Fund Program Account (GF)	2,829	-----	-----
General Fund Payment to Highway Trust Fund [1/]	70,000,000	-----	-----
TOTALS	**114,055,273**	**42,554,403**	**43,190,270**
[Mandatory]	71,100,409	819,063	817,575
[Discretionary]	42,954,864	41,735,340	42,372,695

1/ FY 2016 payment to the Highway Trust Fund comprised of $51.9 billion to the Highway Account and $18.1 billion to the Mass Transit Account.

EXHIBIT II-6
SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL HIGHWAY ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

ADMINISTRATIVE EXPENSES
($000)

			Baseline Changes									
	FY 2016 Actual	FY 2017 Annualized CR	Annualization of 2017 Pay Raises	Annualization of 2017 FTE	2018 Pay Raises	Compensable Days (260 days)	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2018 Baseline Estimate	Program Increases/ Decreases	FY 2018 Request
PERSONNEL RESOURCES (FTE)												
Direct FTE	2,058	2,070								2,070		2,070
FINANCIAL RESOURCES												
Salaries and Benefits	$301,470	$305,300	$1,603		$ 4,373					$311,276		$311,276
Travel	$8,076	$8,076							$81	$8,157		$8,157
Transportation	$1,283	$1,283							$13	$1,296		$1,296
GSA Rent	$29,713	$28,110					$120			$28,230		$28,230
Rent, Communications & Utilities	$5,044	$5,044							$50	$5,094		$5,094
Printing	$851	$851							$9	$860		$860
Other Services:												
-WCF	$30,173	$29,748						$715		$30,463		$30,463
-Other	$40,020	$40,138							$401	$40,539	$5,000	$45,539
Supplies	$1,300	$1,300							$13	$1,313		$1,313
Equipment	$5,086	$5,086							$51	$5,137	$5,327	$10,464
Appalachian Regional Commission (ARC)	$2,212	$3,248								$3,248	($3,248)	$0
Subtotal, Limitation on Administrative Expenses (LAE)	**$425,228**	**$428,184**	**$1,603**	**$0**	**$4,373**	**$0**	**$120**	**$715**	**$618**	**$435,613**	**$7,079**	**$442,692**
OJT Support Services	$12,134	$10,000										$10,000
Disadvantaged Business Enterprise	$8,333	$10,000										$10,000
Highway Use Tax Evasion	$2,067	$4,000										$4,000
GRAND TOTAL, Obligation Limitation	**$447,762**	**$452,184**	**$1,603**	**$0**	**$4,373**	**$0**	**$120**	**$715**	**$618**	**$435,613**	**$7,079**	**$466,692**

EXHIBIT II-7
WORKING CAPITAL FUND
FEDERAL HIGHWAY ADMINISTRATION
($000)

	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
DIRECT:			
Federal-aid Highways			
Limitation on Administrative Expenses	30,173	29,748	30,463
Federal Lands Highways (Direct Construction)	1,459	1,400	1,400
TOTAL	**31,632**	**31,148**	**31,863**

EXHIBIT II-8
FEDERAL HIGHWAY ADMINISTRATION
RESOURCE SUMMARY -- PERSONNEL
TOTAL FULL-TIME EQUIVALENTS

	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
DIRECT FUND, BY APPROPRIATION			
Federal-aid Highways -- General Operating Expenses and Direct Program Funded	2,442	2,481	2,472
Miscellaneous Trust Funds	5	5	5
SUBTOTAL, DIRECT FUNDED	2,447	2,486	2,477
REIMBURSEMENT/ ALLOCATIONS/OTHERS			
Reimbursable Authority -- Federal-aid Highways	243	243	243
Allocation From OST, TIGER grants	3	3	3
SUBTOTAL, REIMBURSEMENTS/ALLOCATIONS/OTHER	246	246	246
TOTAL FTE	2,693	2,732	2,723

EXHIBIT II-9
FEDERAL HIGHWAY ADMINISTRATION
RESOURCE SUMMARY - STAFFING
FULL-TIME PERMANENT POSITIONS

	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
DIRECT FUND, BY APPROPRIATION			
Federal-aid Highways -- General Operating Expenses and Direct Program Funded	2,577	2,568	2,559
Miscellaneous Trust Funds	5	5	5
SUBTOTAL, DIRECT FUNDED	2,582	2,573	2,564
REIMBURSEMENT/ ALLOCATIONS/OTHERS			
Reimbursable Authority -- Federal-aid Highways	243	243	243
Allocation From OST, TIGER grants	3	3	3
SUBTOTAL, REIMBURSEMENT/ALLOCATION/OTHERS	246	246	246
TOTAL POSITIONS	2,828	2,819	2,810

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FEDERAL HIGHWAY ADMINISTRATION
HISTORICAL FUNDING LEVELS (2008-2017)
($000)

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017 Annualized CR
Federal-Aid Highways										
Obligation Limitation	$41,216,051 [1/]	$40,700,000 [2/]	$41,107,000	$41,107,000	$39,143,583	$39,699,000 [3/]	$40,256,000	$40,256,000	$42,361,000	$42,280,472 [4/]
Contract Authority Exempt from Obligation Limitation	$739,000	$739,000	$739,000	$739,000	$739,000	$739,000 [5/]	$739,000 [6/]	$739,000 [7/]	$739,000 [8/]	$739,000 [9/]
Liquidation of Contract Authority	$41,955,051	$41,439,000	$41,846,000	$41,846,000	$39,882,583	$39,699,000	$40,995,000	$40,995,000	$43,100,000	$43,019,472
Limitation on Admin Expenses - FHWA GOE [non-add]	377,556	390,000	413,533	413,533	412,000	416,126	416,100	415,000 [10/]	425,752	424,943 [4/]
Payment to the Highway Account of the Highway Trust Fund	$8,017,000	$7,000,000	$14,700,000			$6,200,000 [5/]	$22,365,000 [6/]	$6,068,000	$51,900,000	
Transfer from the Leaking Underground Storage Tank Trust Fund to the Highway Account of the Highway Trust Fund					$2,400,000		$1,000,000		$100,000	$100,000 [9/]
Supplemental Emergency Relief Funds (GF)	$1,045,000				$1,662,000	$2,022,000 [5/]				$1,004,017
Appalachian Development Highway System (GF)	$15,680	$9,500								
Miscellaneous Appropriations	$15,148	$167,563	$346,515	$18,603	$4,655	$63,369	$388,975	$158,680	$215,776	$2,187
Highway Infrastructure Programs (GF)			$650,000							
Highway Infrastructure Investment, Recovery Act (GF)		$27,500,000								

1/ Does not reflect the following rescissions of new authority in FY 2008: Federal-aid $486.2 million and LAE $43.4 million.
2/ Does not reflect the following rescissions of new authority in FY 2009: $1.162 billion from the $3.15 billion FY 2009 appropriated rescission and $5.3 billion from the $8.7 billion FY 2009 SAFETEA-LU rescission.
3/ Does not reflect P.L. 113-6 rescission of 0.2 percent of contract authority subject to limitation and obligation limitation.
4/ FY 2017 obligation limitation and limitation on administrative expenses estimated based on an annualized rate for the CR (PL 114-254).
5/ Does not reflect sequestration of 5.1 percent of contract authority exempt from oblgiation limitation and payment to the Highway Trust Fund, and 5.0 percent of supplemental emergency relief funds per Sequestration Order dated dated March 1, 2013.
6/ Does not reflect sequestration of 7.2 percent of contract authority exempt from oblgiation limitation and $10.4 billion portion of the payment to the Highway Trust Fund per Sequestration Order dated dated April 10, 2013.
7/ Does not reflect sequestration of 7.3 percent of contract authority exempt from oblgiation limitation per Sequestration Order dated dated March 10, 2014.
8/ Does not reflect sequestration of 6.8 percent of contract authority exempt from oblgiation limitation per Sequestration Order dated dated February 2, 2015.
9/ Does not reflect sequestration of 6.9 percent of contract authority exempt from oblgiation limitation per Sequestration Order dated dated February 9, 2016.
10/ FY 2015 annual appropriations (PL 113-235) provided an obligation limitation of $429.3 million for GOE and ARC. The Surface Transportation and Veterans Health Care Choice Improvement Act of 2015 (PL 114-41) provided contract authority of only $415 million.

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FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAY PROGRAM AUTHORIZATIONS OF CONTRACT AUTHORITY UNDER THE FIXING AMERICA'S SURFACE TRANSPORTATION (FAST) ACT

Program	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total FY 2016-2020
Apportioned Programs	**39,727,500,000**	**40,547,805,000**	**41,424,020,075**	**42,358,903,696**	**43,373,294,311**	**207,431,523,082**
Highway Safety Improvement Program [1/]	2,454,094,512	2,508,792,347	2,556,259,770	2,603,054,152	2,655,923,445	12,778,124,226
National Highway Performance Program [2/]	22,332,260,060	22,830,010,326	23,261,963,879	23,741,388,895	24,235,621,114	116,401,244,274
Surface Transportation Block Grant Program [3/]	11,162,564,768	11,425,377,855	11,667,786,566	11,876,329,314	12,136,990,131	58,269,048,634
Congestion Mitigation & Air Quality Improvement Program	2,309,059,935	2,357,349,730	2,405,187,322	2,449,216,207	2,498,960,969	12,019,774,163
National Highway Freight Program	1,140,250,003	1,090,683,553	1,189,826,092	1,338,554,353	1,487,282,615	6,246,596,616
Metropolitan Transportation Planning	329,270,722	335,591,189	342,996,446	350,360,775	358,516,037	1,716,735,169
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**
Federal Lands and Tribal Transportation Programs	**1,050,000,000**	**1,075,000,000**	**1,100,000,000**	**1,125,000,000**	**1,150,000,000**	**5,500,000,000**
Federal Lands Transportation Program	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	255,000,000	260,000,000	265,000,000	270,000,000	1,300,000,000
Tribal Transportation Program	465,000,000	475,000,000	485,000,000	495,000,000	505,000,000	2,425,000,000
Research, Technology, and Education Program	**414,500,000**	**417,500,000**	**417,500,000**	**420,000,000**	**420,000,000**	**2,089,500,000**
Highway Research and Development Program	125,000,000	125,000,000	125,000,000	125,000,000	125,000,000	625,000,000
Technology and Innovation Deployment Program	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	120,000,000
Intelligent Transportation Systems Program	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000
University Transportation Centers	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	130,000,000
Federal Allocation Programs	**404,000,000**	**404,000,000**	**404,000,000**	**404,000,000**	**404,000,000**	**2,020,000,000**
Construction of Ferry Boats and Ferry Terminal Facilities	80,000,000	80,000,000	80,000,000	80,000,000	80,000,000	400,000,000
Disadvantaged Business Enterprise	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	50,000,000
Emergency Relief [2/]	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000
Highway Use Tax Evasion Projects	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
On-the-Job Training	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	50,000,000
Territorial and Puerto Rico Highway Program	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	1,000,000,000
TIFIA Program	**275,000,000**	**275,000,000**	**285,000,000**	**300,000,000**	**300,000,000**	**1,435,000,000**
Administrative Expenses [4/]	**429,000,000**	**435,795,000**	**442,691,925**	**449,692,304**	**456,797,689**	**2,213,976,918**
TOTAL, FHWA	**43,100,000,000**	**44,005,100,000**	**44,973,212,000**	**46,007,596,000**	**47,104,092,000**	**225,190,000,000**
CA Subject to Obligation Limitation	**42,361,000,000**	**43,266,100,000**	**44,234,212,000**	**45,268,596,000**	**46,365,092,000**	**221,495,000,000**
CA Exempt from Obligation Limitation	**739,000,000**	**739,000,000**	**739,000,000**	**739,000,000**	**739,000,000**	**3,695,000,000**

1/ Amounts for the Highway Safety Improvement Program include set aside for Railway-Highway Crossings Program ($225.0 million in FY 2016 and increasing by $5.0 million each year through FY 2020) and $3.5 million set aside each fiscal year for allocated funding to carry out certain safety-related activities.

2/ Amounts exempt from Obligation Limitation include $100,000,000 for Emergency Relief and $639,000,000 of the National Highway Performance Program apportionments. FY 2016 amounts do not reflect sequestration of 6.8% per Sequestration Order dated February 2, 2015. FY 2017 amounts do not reflect sequestration of 6.9% per Sequestration Order dated February 9, 2016.

3/ Amounts for Surface Transportation Block Grant Program include set aside for Transportation Alternatives equal to $835.0 million in FY 2016 and FY 2017 and $850.0 million in FY 2018 through FY 2020.

4/ FY 2016 and FY 2017 included FHWA General Operating Expenses (GOE) and transfers to the Appalachian Regional Commission (ARC) for administrative activities associated with the Appalachian development highway system. FY 2018 through FY 2020 include FHWA GOE.

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FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON ADMINISTRATIVE EXPENSES

(HIGHWAY TRUST FUND)

Not to exceed $442,691,925, together with advances and reimbursements received by the Federal Highway Administration, shall be obligated for necessary expenses for administration and operation of the Federal Highway Administration in accordance with section 104(a) of title 23, United States Code.

FEDERAL-AID HIGHWAYS

(LIMITATION ON OBLIGATIONS)

(HIGHWAY TRUST FUND)

Funds available for the implementation or execution of Federal-aid highway and highway safety construction programs authorized under titles 23 and 49, United States Code, and the provisions of the Fixing America's Surface Transportation Act shall not exceed total obligations of $44,234,212,000 for fiscal year 2018: Provided, That the Secretary may collect and spend fees, as authorized by title 23, United States Code, to cover the costs of services of expert firms, including counsel, in the field of municipal and project finance to assist in the underwriting and servicing of Federal credit instruments and all or a portion of the costs to the Federal Government of servicing such credit instruments: Provided further, That such fees are available until expended to pay for such costs: Provided further, That such amounts are in addition to administrative expenses that are also available for such purpose, and are not subject to any obligation limitation or the limitation on administrative expenses under section 608 of title 23, United States Code.

(LIQUIDATION OF CONTRACT AUTHORIZATION)

(HIGHWAY TRUST FUND)

For the payment of obligations incurred in carrying out Federal-aid highway and highway safety construction programs authorized under title 23, United States Code, $44,973,212,000 derived from the Highway Trust Fund (other than the Mass Transit Account), to remain available until expended.

ADMINISTRATIVE PROVISIONS - FEDERAL HIGHWAY ADMINISTRATION

Sec. 120.
(a) For fiscal year 2018, the Secretary of Transportation shall--
(1) not distribute from the obligation limitation for Federal-aid highways--

(A) amounts authorized for administrative expenses and programs by section 104(a) of title 23, United States Code; and

(B) amounts authorized for the Bureau of Transportation Statistics;

(2) not distribute an amount from the obligation limitation for Federal-aid highways that is equal to the unobligated balance of amounts--

(A) made available from the Highway Trust Fund (other than the Mass Transit Account) for Federal-aid highway and highway safety construction programs for previous fiscal years the funds for which are allocated by the Secretary (or apportioned by the Secretary under sections 202 or 204 of title 23, United States Code); and

(B) for which obligation limitation was provided in a previous fiscal year;

(3) determine the proportion that--

(A) the obligation limitation for Federal-aid highways, less the aggregate of amounts not distributed under paragraphs (1) and (2) of this subsection; bears to

(B) the total of the sums authorized to be appropriated for the Federal-aid highway and highway safety construction programs (other than sums authorized to be appropriated for provisions of law described in paragraphs (1) through (11) of subsection (b) and sums authorized to be appropriated for section 119 of title 23, United States Code, equal to the amount referred to in subsection (b)(12) for such fiscal year), less the aggregate of the amounts not distributed under paragraphs (1) and (2) of this subsection;

(4) distribute the obligation limitation for Federal-aid highways, less the aggregate amounts not distributed under paragraphs (1) and (2), for each of the programs (other than programs to which paragraph (1) applies) that are allocated by the Secretary under the Fixing America's Surface Transportation Act and title 23, United States Code, or apportioned by the Secretary under sections 202 or 204 of that title, by multiplying--

(A) the proportion determined under paragraph (3); by

(B) the amounts authorized to be appropriated for each such program for such fiscal year; and

(5) distribute the obligation limitation for Federal-aid highways, less the aggregate amounts not distributed under paragraphs (1) and (2) and the amounts distributed under paragraph (4), for Federal-aid highway and highway safety construction programs that are apportioned by the Secretary under title 23, United States Code (other than the amounts apportioned for the National Highway Performance Program in section 119 of title 23, United States Code, that are exempt from the limitation under subsection (b)(12) and the amounts apportioned under sections 202 and 204 of that title) in the proportion that--

(A) amounts authorized to be appropriated for the programs that are apportioned under title 23, United States Code, to each State for such fiscal year; bears to

(B) the total of the amounts authorized to be appropriated for the programs that are apportioned under title 23, United States Code, to all States for such fiscal year.

(b) EXCEPTIONS FROM OBLIGATION LIMITATION.-- The obligation limitation for Federal-aid highways shall not apply to obligations under or for--

(1) section 125 of title 23, United States Code;

(2) section 147 of the Surface Transportation Assistance Act of 1978 (23 U.S.C. 144 note; 92 Stat. 2714);

(3) section 9 of the Federal-Aid Highway Act of 1981 (95 Stat. 1701);

(4) subsections (b) and (j) of section 131 of the Surface Transportation Assistance Act of 1982 (96 Stat. 2119);

(5) subsections (b) and (c) of section 149 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (101 Stat. 198);

(6) sections 1103 through 1108 of the Intermodal Surface Transportation Efficiency Act of 1991 (105 Stat. 2027);

(7) section 157 of title 23, United States Code (as in effect on June 8, 1998);

(8) section 105 of title 23, United States Code (as in effect for fiscal years 1998 through 2004, but only in an amount equal to $639,000,000 for each of those fiscal years);

(9) Federal-aid highway programs for which obligation authority was made available under the Transportation Equity Act for the 21st Century (112 Stat. 107) or subsequent Acts for multiple years or to remain available until expended, but only to the extent that the obligation authority has not lapsed or been used;

(10) section 105 of title 23, United States Code (as in effect for fiscal years 2005 through 2012, but only in an amount equal to $639,000,000 for each of those fiscal years);

(11) section 1603 of SAFETEA-LU (23 U.S.C. 118 note; 119 Stat. 1248), to the extent that funds obligated in accordance with that section were not subject to a limitation on obligations at the time at which the funds were initially made available for obligation; and

(12) section 119 of title 23, United States Code (but, for each of fiscal years 2013 through 2018, only in an amount equal to $639,000,000).

(c) REDISTRIBUTION OF UNUSED OBLIGATION LIMITATION.-- Notwithstanding subsection (a), the Secretary shall, after August 1 of such fiscal year--

(1) revise a distribution of the obligation limitation made available under subsection (a) if an amount distributed cannot be obligated during that fiscal year; and

(2) redistribute sufficient amounts to those States able to obligate amounts in addition to those previously distributed during that fiscal year, giving priority to those States having large unobligated balances of funds

apportioned under sections 144 (as in effect on the day before the date of enactment of Public Law 112-141) and 104 of title 23, United States Code.

(d) APPLICABILITY OF OBLIGATION LIMITATIONS TO TRANSPORTATION RESEARCH PROGRAMS.--

(1) IN GENERAL.-- Except as provided in paragraph (2), the obligation limitation for Federal-aid highways shall apply to contract authority for transportation research programs carried out under--

(A) chapter 5 of title 23, United States Code; and

(B) title VI of the Fixing America's Surface Transportation Act.

(2) EXCEPTION.-- Obligation limitation made available under paragraph (1) shall--

(A) remain available for a period of 4 fiscal years; and

(B) be in addition to the amount of any limitation imposed on obligations for Federal-aid highway and highway safety construction programs for future fiscal years.

(e) REDISTRIBUTION OF CERTAIN AUTHORIZED FUNDS.--

(1) IN GENERAL.-- Not later than 30 days after the date of distribution of obligation limitation under subsection (a), the Secretary shall distribute to the States any funds (excluding funds authorized for the program under section 202 of title 23, United States Code) that--

(A) are authorized to be appropriated for such fiscal year for Federal-aid highway programs; and

(B) the Secretary determines will not be allocated to the States (or will not be apportioned to the States under section 204 of title 23, United States Code), and will not be available for obligation, for such fiscal year because of the imposition of any obligation limitation for such fiscal year.

(2) RATIO.-- Funds shall be distributed under paragraph (1) in the same proportion as the distribution of obligation limitation under subsection (a)(5).

(3) AVAILABILITY.-- Funds distributed to each State under paragraph (1) shall be available for any purpose described in section 133(b) of title 23, United States Code.

Sec. 121. Notwithstanding 31 U.S.C. 3302, funds received by the Bureau of Transportation Statistics from the sale of data products, for necessary expenses incurred pursuant to chapter 63 of title 49, United States Code, may be credited to the Federal-aid highways account for the purpose of reimbursing the Bureau for such expenses: Provided, That such funds shall be subject to the obligation limitation for Federal-aid highway and highway safety construction programs.

Sec. 122. Not less than 15 days prior to waiving, under his or her statutory authority, any Buy America requirement for Federal-aid highways projects, the Secretary of Transportation shall make an informal public notice and comment opportunity on the intent to issue such waiver and the reasons therefor: Provided, That the Secretary

shall provide an annual report to the House and Senate Committees on Appropriations on any waivers granted under the Buy America requirements.

Sec. 123. None of the funds made available in this Act to the Department of Transportation may be used to provide credit assistance unless not less than 3 days before any application approval to provide credit assistance under sections 603 and 604 of title 23, United States Code, the Secretary of Transportation provides notification in writing to the following committees: the House and Senate Committees on Appropriations; the Committee on Environment and Public Works and the Committee on Banking, Housing and Urban Affairs of the Senate; and the Committee on Transportation and Infrastructure of the House of Representatives: Provided*, That such notification shall include, but not be limited to, the name of the project sponsor; a description of the project; whether credit assistance will be provided as a direct loan, loan guarantee, or line of credit; and the amount of credit assistance.*

~~*Sec. 124. Section 127 of title 23, United States Code, is amended—*~~

~~*(1) in each of subsections (a)(11)(A) and (B) by striking "through December 31, 2013", and*~~

~~*(2) inserting at the end of the following*~~

~~*"(t) VEHICLES IN IDAHO.—A vehicle limited or prohibited under this section from operating on a segment of the Interstate System in the State of Idaho may operate on such a segment if such vehicle—*~~

~~*"(1) has a gross vehicle weight of 129,000 pounds or less,*~~

~~*"(2) other than gross vehicle weight, complies with the single axle, tandem axle, and bridge formula limits set forth in subsection (a), and*~~

~~*"(3) is authorized to operate on such segment under Idaho State Law.".*~~

[Reason for excluding Sec. 124 of the FY 2016 Department of Transportation Appropriations Act: Section 127 of title 23, United States Code, has already been amended accordingly pursuant to the FY 2016 Department of Transportation Appropriations Act.]

Sec. 124. (a) A State or territory, as defined in section 165 of title 23, United States Code, may use for any project eligible under section 133(b) of title 23 or section 165 of title 23 and located within the boundary of the State or territory any earmarked amount, and any associated obligation limitation, provided that the Department of Transportation for the State or territory for which the earmarked amount was originally designated or directed notifies the Secretary of Transportation of its intent to use its authority under this section and submits a quarterly report to the Secretary identifying the projects to which the funding would be applied. Notwithstanding the original period of availability of funds to be obligated under this section, such funds and associated obligation limitation shall remain available for obligation for a period of 3 fiscal years after the fiscal year in which the Secretary of Transportation

is notified. The Federal share of the cost of a project carried out with funds made available under this section shall be the same as associated with the earmark.

(b) In this section, the term "earmarked amount" means—

(1) congressionally directed spending, as defined in rule XLIV of the Standing Rules of the Senate, identified in a prior law, report, or joint explanatory statement, which was authorized to be appropriated or appropriated more than 10 fiscal years prior to the current fiscal year, and administered by the Federal Highway Administration; or

(2) a congressional earmark, as defined in rule XXI of the Rules of the House of Representatives identified in a prior law, report, or joint explanatory statement, which was authorized to be appropriated or appropriated more than 10 fiscal years prior to the current fiscal year, and administered by the Federal Highway Administration.

(c) The authority under subsection (a) may be exercised only for those projects or activities that have obligated less than 10 percent of the amount made available for obligation as of October 1 of the current fiscal year, and shall be applied to projects within the same general geographic area within 50 miles for which the funding was designated, except that a State or territory may apply such authority to unexpended balances of funds from projects or activities the State or territory certifies have been closed and for which payments have been made under a final voucher.

(d) The Secretary shall submit consolidated reports of the information provided by the States and territories each quarter to the House and Senate Committees on Appropriations.

~~*Sec. 126 Notwithstanding any other provision of law, the amount that the Secretary sets aside for fiscal year 2016 under section 130(e)(1) of title 23, United States Code, for the elimination of hazards and the installation of protective devices at railway-highway crossings shall be $350,000,000.*~~

[Reason for excluding Sec. 126 of the FY 2016 Department of Transportation Appropriations Act: This provision does not align with the amount in the Fixing America's Surface Transportation Act.]

[Proposed amendment below to Sec. 180, General Provisions for DOT, regarding acquisition of UAS]

GENERAL PROVISIONS—DEPARTMENT OF TRANSPORTATION

Sec. 180

(a) During the current fiscal year, applicable appropriations to the Department of Transportation shall be available for maintenance and operation of aircraft; hire of passenger motor vehicles and aircraft; purchase of liability insurance for motor vehicles operating in foreign countries on official department business; and uniforms or allowances therefor, as authorized by law (5 U.S.C. 5901–5902).

(b) During the current fiscal year, applicable appropriations to the Department and its operating administrations shall be available for the purchase, acquisition, maintenance, operation, and deployment of unmanned aircraft systems that advance the Department's or its operating administrations' mission."

(c) Any unmanned aircraft system purchased, procured, or contracted for by the Department prior to the enactment of this Act shall be deemed authorized by Congress as if this provision was in effect when the system was purchased, procured or contracted for.

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EXHIBIT III-1
FEDERAL-AID HIGHWAYS
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST	CHANGE FY 2017-2018
Federal-aid Highways				
[Limitation on Administrative Expenses] 1/	[429,000]	[428,184]	[442,692]	[14,508]
(Obligation Limitation)	(42,361,000)	(42,280,472)	(44,234,212)	1,953,740
Exempt Programs 2/	739,000	739,000	739,000	-----
Flex Transfers to/from FTA	- 1,227,646	-1,300,000	-1,300,000	-----
Transfer to NHTSA 3/	-91,041	-98,639	-----	98,639
Total, Obligation Limitation & Authority	**$41,781,313**	**$41,620,833**	**$43,673,212**	**$2,052,379**
FTE				
Direct Funded	2,442	2,481	2,472	-9
Reimbursable	243	243	243	-----
Total, FTE	**2,685**	**2,724**	**2,715**	**-9**

Program and Performance Statement

This account provides necessary resources to support Federal-aid Highway program activities and maintain the agency's administrative infrastructure. Funding will maintain and improve the safety, condition, and performance of our national highway system. These funds will help create a well-coordinated, well-maintained transportation network that supports our economy, creates jobs, and leads us into the future.

[ ] Non-add

1/ FY 2016 and FY 2017 include FHWA General Operating Expenses (GOE) and transfers to the Appalachian Regional Commission (ARC) for administrative activities associated with the Appalachian development highway system. FY 2018 includes FHWA GOE. All fiscal years do not include amounts for other non-administrative programs authorized under Administrative Expenses.

2/ FY 2016 does not reflect sequestration of 6.8 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 2, 2015. FY 2017 does not reflects sequestration of 6.9 percent of contract authority exempt from obligation limitation per Sequestration Order dated February 9, 2016.

3/ FHWA anticipates transfers to NHTSA in FY 2018 in an amount to be determined based on State penalty information.

EXHIBIT III-1a
FEDERAL-AID HIGHWAYS
SUMMARY ANALYSIS OF CHANGE FROM FY 2017 TO FY 2018
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

Item	Change from FY 2017 to FY 2018 ($000)	Change from FY 2017 to FY 2018 FTE
FY 2017 Base (Obligation Limitation + Exempt CA)	**$43,019,472**	**2,481**
Federal-aid Highways		
Adjustments to Base		
Annualization of 2017 President's Raise (2.1%)	$1,603	
2018 President's Raise (1.9%)	$4,373	
GSA Rent	$120	
Working Capital Fund (WCF)	$715	
Inflation	$618	
Subtotal, Adjustments to Base	**$7,429**	**0**
Program Increases/Decreases		
Federal-aid Highway Program	$1,939,232	
Conversion to DP2	$3,000	
Replace Hosting Environment Equipment	$2,300	
Computer Refreshes	$1,600	
UPACS Modernization	$1,000	
Office Relocations and Reconfigurations	$700	
Replace Video Teleconference (VTC) Equipment	$700	
Refresh Field Network and Server Hardware	$527	
Expanded Supervisory and Leadership Training	$300	
Discipline Seminars	$200	
Adjustment to Appalachian Regional Commission	-$3,248	-9
Subtotal, New or Expanded Programs	**$1,946,311**	**-9**
FY 2018 Total Request [Ob. Lim. + Exempt CA]	**$44,973,212**	**2,472**

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

PROGRAM AND FINANCING SCHEDULE
in millions of dollars

Identification code: 69-8083-0-7-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Obligations by program activity:				
	Obligations by program activity:			
0010	Surface transportation block grant program	13,203	13,241	14,136
0014	National highway performance program	20,056	20,114	21,474
0015	Congestion mitigation and air quality improvement program	1,179	1,182	1,262
0016	Highway safety improvement program	2,792	2,800	2,989
0017	Metroploitan transportation planning	261	262	279
0019	National highway freight program	668	670	715
0020	Nationally significant freight and highway projects	……	1,546	855
0024	Federal lands and tribal programs	686	736	786
0029	Research, technology and education program	273	298	323
0032	Administration - LAE	421	423	432
0033	Administration - ARC	2	2	2
0058	Other programs	1,759	608	326
0091	Programs subject to obligation limitation	41,300	41,882	43,579
0211	Exempt programs	790	783	775
0500	Total direct program	42,090	42,665	44,354
	Credit program obligations:			
0701	Direct loan subsidy	109	273	248
0709	Administrative expenses	5	7	8
0791	Direct program activities, subtotal	114	280	256
0799	Total direct obligations	42,204	42,945	44,610
0801	Reimbursable program	154	340	340
0900	Total new obligations	42,358	43,285	44,950
Budgetary resources:				
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	24,843	24,477	24,087
1001	Discretionary unobligated balance brought fwd, Oct 1	258	362	……
1013	Unobligated balance of contract authority transferred to or from other accounts [69-8350]	34	……	……
1050	Unobligated balance (total)	24,877	24,477	24,087
	Budget authority:			
	Appropriations, discretionary:			
1101	Appropriation (trust fund)	43,100	44,005	44,973
1120	Appropriations transferred to other accounts [69-8350]	-1,170	-1,300	-1,300
1120	Appropriations transferred to other accounts [69-8020]	-91	-99	……
1121	Appropriations transferred from other accounts [69-8350]	78	……	……
1133	Unobligated balance of appropriations temporarily reduced	-37	……	……
1137	Appropriations applied to liquidate contract authority	-41,917	-42,606	-43,673
1160	Appropriations, discretionary (total)	-37	……	……
	Contract authority, mandatory:			
1600	Contract authority	43,100	44,005	44,973
1610	Transfer to other accounts [69-8350]	-1,273	-1,300	-1,300
1610	Transfer to other accounts [69-8020]	-91	-99	……
1611	Transfer from other accounts [69-8350]	45	……	……
1621	Contract authority temporarily reduced	-50	-51	……
1640	Contract authority, mandatory (total)	41,731	42,555	43,673
	Spending authority from offsetting collections, discretionary:			
1700	Collected	161	340	340
1701	Change in uncollected payments, Federal sources	103	……	……
1750	Spending authority from offsetting collections, discretionary (total)	264	340	340
1900	Budget authority (total)	41,958	42,895	44,013
1930	Total budgetary resources available	66,835	67,372	68,100
	Memorandum (non-add) entires:			
1941	Unexpired unobligated balance, end of year	24,477	24,087	23,150

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

PROGRAM AND FINANCING SCHEDULE
in millions of dollars

Identification code: 69-8083-0-7-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Change in obligated balance				
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	64,483	63,259	64,242
3010	Obligations incurred, unexpired accounts	42,358	43,285	44,950
3020	Outlays (gross)	-43,582	-42,302	-42,956
3050	Unpaid obligations, end of year	63,259	64,242	66,236
	Uncollected payments:			
3060	Uncollected payments, Federal sources, brought forward, Oct 1	-464	-567	-567
3070	Change in uncollected payments, Federal sources, unexpired	-103	……	……
3090	Uncollected payments, federal sources, end of year	-567	-567	-567
	Memorandum (non-add) entries			
3100	Obligated balance, start of year	64,019	62,692	63,675
3200	Obligated balance, end of year	62,692	63,675	65,669
Budget authority and outlays, net				
	Discretionary:			
4000	Budget authority, gross	227	340	340
	Outlays, gross:			
4010	Outlays from new discretionary authority	11,543	11,405	11,932
4011	Outlays from discretionary balances	31,208	30,144	30,268
4020	Outlays, gross (total)	42,751	41,549	42,200
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	-91	-340	-340
4040	Offsets against gross budget authority and outlays	-91	-340	-340
	Additional offsets against gross budget authority only:			
4050	Change in uncollected payments, Federal sources, unexpired	-103	……	……
4070	Budget authority, net (discretionary)	-37	……	……
4080	Outlays, net (discretionary)	42,590	41,209	41,860
	Mandatory:			
4090	Budget authority, gross	41,731	42,555	43,673
	Outlays, gross:			
4100	Outlays from new mandatory authority	203	186	200
4101	Outlays from mandatory balances	628	567	556
4110	Outlays, gross (total)	831	753	756
4160	Budget authority, net (mandatory)	41,731	42,555	43,673
4170	Outlays, net (mandatory)	831	753	756
4180	Budget authority, net (total)	41,694	42,555	43,673
4190	Outlays, net (total)	43,421	41,962	42,616

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

OBJECT CLASSIFICATION
in millions of dollars

Identification code: 69-8083-0-7-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct obligations:				
	Personnel compensation:			
11.1	Full-time permanent	287	288	296
11.3	Other than full-time permanent	2	2	2
11.5	Other personnel compensation	36	36	36
11.9	Total personnel compensation	325	326	334
12.1	Civilian personnel benefits	99	100	101
21.0	Travel and transportation of persons	20	20	20
22.0	Transportation of things	1	1	1
23.1	Rental payments to GSA	31	29	29
23.2	Rental payments to others	1	1	1
23.3	Communications, utilities, and misc. charges	9	9	9
24.0	Printing and reproduction	1	1	1
25.1	Advisory and assistance services	84	84	84
25.2	Other services from non-federal sources	511	511	515
25.3	Other goods and services from federal sources	396	396	396
25.4	Operation and maintenance of facilities	28	28	28
25.7	Operation and maintenance of equipment	49	49	49
26.0	Supplies and materials	6	6	6
31.0	Equipment	10	10	17
32.0	Land and structures	12	12	12
33.0	Investments and loans	109	109	109
41.0	Grants, subsidies, and contributions	40,512	41,253	42,898
99.0	Direct obligations	42,204	42,945	44,610
99.0	Reimbursable obligations	154	340	340
99.9	Total new obligations	42,358	43,285	44,950

FEDERAL-AID HIGHWAYS

EMPLOYMENT SUMMARY

Identification code: 69-8083-0-7-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
	Direct:			
1001	Civilian full-time equivalent employment	2,442	2,481	2,472
	Reimbursable:			
2001	Civilian full-time equivalent employment	243	243	243
	Allocation account:			
3001	Civilian full-time equivalent employment	3	3	3

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Executive Summary
Highway Safety Improvement Program (HSIP)

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 budget requests a $2.56 billion Federal-aid safety program to significantly reduce traffic fatalities and serious injuries on all public roads. The HSIP is leading the transition to a performance-based program, which will require that Federal-aid investments support State-set targets for safety, and will hold States accountable to achieving safety performance targets. Improving roadway safety is a top priority of the Department. The HSIP FY 2016 and FY 2017 levels are $2.45 billion and $2.51 billion, respectively.

What Is The Program And Why Is It Necessary?
The HSIP is a performance-driven, strategic program that will reduce fatalities and serious injuries for all road users. The program emphasizes coordination among all highway safety modes, including the National Highway Traffic Safety Administration (NHTSA) and the Federal Motor Carrier Safety Administration (FMCSA). A primary component of the HSIP is the requirement that each State utilize a Strategic Highway Safety Plan (SHSP). This statewide, coordinated safety plan provides a comprehensive framework for establishing statewide goals and objectives to reduce fatalities and serious injuries.

The HSIP will continue to save lives and prevent serious injuries for all road users, including pedestrians and bicyclists. Data from 2015 indicates that 35,092 people died in motor vehicle crashes on the nation's highways, which is a 7.2 percent increase from 2014. This increase is the largest percentage increase in nearly 50 years. The Department must continue to take action to address this serious public safety problem. In addition to the human impact, NHTSA estimates that the annual societal burden of highway crashes when lost quality of life is taken into account is $836 billion. No amount of money can replace the loss of a loved one or lessen a family member's suffering. However, the economic and societal costs of motor vehicle crashes demonstrate even further the importance of investing in highway safety and achieving a better safety record on U.S. highways.

What Does This Funding Level Support?
Our $2.56 billion request for HSIP represents an increase in existing funding to maintain the substantial benefits of the HSIP. Of all the Department's priorities, none is higher than safety, and it is critical that sufficient resources are provided to achieve an even better safety record on U.S. highways.

What Benefits Will Be Provided To The American Public Through This Request?
This program saves lives and reduces serious injuries for all road users. Despite the recent increase in fatalities, overall the number of highway-related fatalities decreased 19 percent between 2005 and 2015. This decrease in highway fatalities coincides with the establishment of the HSIP as a core Federal-aid program. An extrapolation of the data conservatively indicates that the full benefits of a $2.56 billion program are as high as 1,800 lives saved and 6,000 serious injuries prevented over the average 10-year lifecycle of the safety infrastructure countermeasures funded by the HSIP. FHWA estimates that highway safety improvement projects result in as high as $7 of benefits for every dollar invested.

Detailed Justification
Highway Safety Improvement Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Highway Safety Improvement Program ($2.56 billion)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Highway Safety Improvement Program				
Highway Safety Improvement Program	2,454,095	2,508,562	2,556,260	47,698
Total	**2,454,095**	**2,508,562**	**2,556,260**	**47,698**

What Is This Program And Why Is It Necessary?

The HSIP is a safety-focused program that targets funds to achieve a significant reduction in fatalities and serious injuries on all public roads for all road users, including pedestrians and bicyclists. The HSIP includes a performance-driven, strategic approach to improving highway safety and assists the States in improving their roadway safety data. HSIP projects are consistent with the emphasis areas in the State SHSP, although the HSIP also includes set-asides for railway-highway crossings and for other safety-related programs. Safety investments from the HSIP tend to be infrastructure projects that save lives and reduce the severity of crashes. Anticipated FY 2018 accomplishments include State implementation of projects and strategies through a performance-based approach, improved safety data collection, analysis and use, improved program reporting, and compliance with Fixing America's Surface Transportation (FAST) Act requirements.

Program Features:

- **Performance-based Framework –** HSIP is leading the implementation of FHWA's overall transportation performance management framework. The features of the framework include:
  - A coordinated set of performance measures for the number and rate of fatalities, number and rate of serious injuries and number of non-motorized fatalities and non-motorized serious injuries. Three of the performance measures (number of fatalities, rate of fatalities, and number of serious injuries) are synchronized with the performance measures States report to NHTSA.
  - Performance management-based evaluation of program results.
  - Investments dedicated to safety for those States that do not meet or make significant progress toward meeting their targets.
  - Technical assistance aimed toward the achievement of State and MPO safety performance targets.

- **Statewide Strategic Highway Safety Plan (SHSP)** – Each State's SHSP is a statewide coordinated plan developed in cooperation with a broad range of multidisciplinary stakeholders that provides a comprehensive framework for safety. The data-driven State

SHSP defines State safety goals and integrates the 4 "E's" – engineering, education, enforcement, and emergency medical services. The States are guided by the plan and their data in using HSIP and other funds to solve relevant safety problems and save lives. The SHSP provides the overarching strategic framework for the State DOTs' program of highway safety improvement projects.

- **Data and Analysis –** As part of the HSIP, States are required to develop and maintain a safety data system or advance their capabilities to collect, maintain, and share a record of safety data on all public roads for all road users including pedestrians and bicyclists; create or enhance a highway basemap of all public roads; collect a subset of the Model Inventory of Road Elements (MIRE); develop analytical processes for safety data elements; acquire and implement roadway safety analysis tools; identify roadway features that constitute a danger to all road users and perform safety problem identification and countermeasure analysis; and implement and evaluate highway safety improvement projects.

- **HSIP Reporting and Evaluation** – Each State prepares an annual report on its highway safety improvement program that describes the projects implemented under the program, assesses the effectiveness of those projects, and describes the extent to which the funded improvements contribute to meeting its targets and reducing the number and rate of fatalities and serious injuries on all public roads in the State. The results feed the next iteration of the SHSP and future data and analysis efforts.

- **High-Risk Rural Roads (HRRR)** – If the fatality rate on rural roads in a State increases over the most recent 2-year period for which data are available, that State must obligate in the following year an amount equal to at least 200 percent of the amount of funds the State received for FY 2009 for high-risk rural roads.

- **Older Drivers and Pedestrians** – If traffic fatalities and serious injuries per capita for drivers and pedestrians age 65 and older in a State increases during the most recent 2-year period for which data are available, that State must include, in the subsequent SHSP, strategies to address the increases in those rates, taking into account the recommendations included in FHWA's 2014 "*Handbook for Designing Roadways for the Aging Population*."

- **Railway-Highway Crossing Funds** – $235 million of HSIP funds are set aside to address safety at railway-highway crossings.

- **Safety-related Programs –** $3.5 million of HSIP funds are set aside for transportation safety outreach, training, and education through the following activities: Operation Lifesaver, the Public Road Safety Clearinghouse, Work Zone Safety Grants, the National Work Zone Safety Information Clearinghouse, and guardrail training.

What Does This Funding Level Support?

Our $2.56 billion request for HSIP represents a modest increase in existing funding to maintain the substantial benefits of the HSIP. Safety is the Department's top priority, and it is critical that sufficient resources are provided to achieve a better safety record on U.S. highways.

The HSIP is the main instrument for infrastructure safety for achieving the goal of reducing transportation-related fatalities, injuries, and crashes for all transportation users, working toward zero fatalities across all modes of travel. Achieving this goal requires undertaking various strategies in the focus areas of safer vehicles, safer driver behavior, and safer highway infrastructure. In MAP-21, Congress supported that vision by confirming the purpose of the HSIP – "to achieve a significant reduction in traffic fatalities and serious injuries." The FAST Act and this budget request work to achieve this goal.

FHWA contributes greatly toward the achievement of the Safety Goal through the close working relationship with other safety modes, State, Tribal, and local governments, and other partners. While NHTSA and FMCSA focus resources on improved vehicle and user safety, FHWA concentrates on ensuring the safety of the highway infrastructure. This balance of coordinated efforts enables the DOT modes to concentrate on their areas of expertise while working toward a single goal. This coordination encourages and enables greater unity of effort. Coupled with a comprehensive focus on shared reliable safety data, the efforts of all modes will ensure that the federal efforts are implemented to their greatest potential.

The SHSP process has fostered an unprecedented level of partnership among a variety of safety stakeholders. As life-saving initiatives are identified, the demand for dedicated safety resources grows. Furthermore, with an additional emphasis on safety and roadway design characteristics data, States will be able to more effectively use existing and future analysis tools for problem identification, trend analysis, safety projects, and systemic improvement planning.

Safety infrastructure investments are effective and cost-beneficial. FHWA identifies and promotes proven safety countermeasures that have a demonstrated ability to reduce crashes. FHWA helps document these at the Crash Modification Factors (CMF) Clearinghouse (http://www.cmfclearinghouse.org), a web-based database with supporting documentation to help transportation engineers identify the most appropriate countermeasure for their safety needs. A CMF is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site. For example, the installation of centerline rumble strips on a two-lane roadway can lead to a 14 percent reduction in all crashes and a 55 percent reduction in head-on crashes. Cable median barriers on multi-lane divided roadways can reduce injury crashes by 29 percent.

FHWA's Roadway Safety Data Program, as summarized at http://safety.fhwa.dot.gov/rsdp/toolbox-home.aspx, invests more than $1 million per year to provide outreach guidance, technical support, training, and case studies on the use of the Highway Safety Manual, the CMF Clearinghouse and other related analysis tools such as the systemic safety project selection tool (http://safety.fhwa.dot.gov/systemic/) to support more scientifically rigorous safety investment decision-making. FHWA also works with State and

local agencies to improve the safety data systems that are the foundation for data-driven, evidence-based decision-making.

What Benefits Will Be Provided To The American Public Through This Request?

HSIP could reduce fatalities by as much as 180 per year and serious injuries by 600 per year and is estimated to save 1,800 lives and 6,000 serious injuries over the average 10-year lifecycle of the safety infrastructure countermeasures funded by the HSIP. Funding the program at a lower level would reduce the States' ability to make the most effective safety investment decisions and result in fewer safety investments. Therefore, less funding will result in fewer lives saved and fewer serious injuries prevented. The $2.56 billion HSIP request would provide an estimated economic benefit as high as $18 billion, a benefit-cost ratio of approximately 7 to 1.

After States set safety targets, the performance-based aspects of HSIP will hold them accountable for achieving those targets. The public investment in transportation safety will be more effectively managed through improved decision-making as a result of an increased focus on target achievement and a greater level of transparency and accountability.

A single death on our roadways, sidewalks, and bicycles paths is a tragedy; almost 96 deaths a day is unacceptable when we possess the tools and capability to help prevent them. This program will significantly reduce deaths and serious injuries for all road users. This data-driven, coordinated approach has played a significant role in achieving the 19 percent reduction in highway fatalities and serious injuries since 2005, the year that the HSIP was enacted.

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Executive Summary
National Highway Performance Program

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 budget requests $23.26 billion for the National Highway Performance Program (NHPP) to improve the condition and performance of the National Highway System (NHS). A key component of the NHPP is performance management requirements to focus Federal-aid investments to support progress toward the achievement of performance targets for the NHS. These requirements will hold States accountable for achieving performance targets while continuing to give them the flexibility to make transportation investment decisions. Our FY 2018 request is a slight increase over the FY 2016 level of $22.33 billion and the FY 2017 level of $22.83 billion.

What Is This Program And Why Is It Necessary?
The NHPP provides funds to the States on a formula basis. Its purpose is to preserve and improve the NHS. Due to expected population and economic growth, freight and passenger transportation demands are projected to increase 250 percent by 2050. Modernizing and preserving an efficient transportation system in this environment are critical to maintain the competitiveness of our economy.

In 2015, 60 percent of vehicle miles travelled on the NHS occurred on pavements with good ride quality. The condition of pavement and bridges across the country varies considerably as many States struggle to maintain current conditions. Investment in our nation's transportation infrastructure is needed right now if we expect to maintain a global competitive edge.

What Does This Funding Level Support?
Funding the NHPP program at $23.26 billion in FY 2018 supports improvements toward achieving a state of good repair and improved operations on the NHS, consistent with the analyses presented in the biennial *Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance* report to Congress (2015 C&P report). Maintaining a state of good repair on the NHS reduces more costly improvements if infrastructure is allowed to deteriorate.

What Benefits Will Be Provided To The American Public Through This Request?
Preserving and improving the NHS keeps America's highways and bridges safe, supports U.S. competitiveness in world trade, and improves the U.S. economy. It binds the country together by making interstate and intra-state commerce possible, while allowing Americans to visit other parts of the country to experience its wonders. It creates employment opportunities to support development of a skilled and diverse transportation workforce through FHWA's existing On-the-Job Training and workforce development programs. The NHPP emphasizes preservation of the NHS while giving States flexibility to make additional investments to enhance NHS condition and operational performance and to build new capacity. The NHPP addresses all areas of the United States including mobility and access in rural areas, ensuring that improvements to the NHS benefit both urban and rural settings.

Detailed Justification
National Highway Performance Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – National Highway Performance Program ($23.26 billion)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
National Highway Performance Program				
National Highway Performance Program [1/]	22,332,260	22,827,911	23,261,964	434,053
Total	**22,332,260**	**22,827,911**	**23,261,964**	**434,053**

1/ $639 million in each fiscal year is exempt from obligation limitation of which $43.5 million was sequestered in FY 2016 and $44.1 million was sequestered in FY 2017. (sequestration not reflected in table).

What Is This Program And Why Is It Necessary?

The NHPP is a formula-based program that supports the Department's state of good repair outcome to increase the proportion of highways and bridges in good physical and operating condition. It helps to keep our roads and bridges safe; improves our Nation's competitiveness in global trade; and maximizes the economic returns from transportation policies and investments.

This justification requests that the NHPP be funded at $23.26 billion to continue progress towards achieving a state of good repair on the NHS.

Key features of the program include:

- a focus on improving and preserving the NHS;
- a performance-based framework;
- increased flexibility to the States for making transportation investment decisions; and
- requirements for risk-based asset management plans.

The NHPP requires a risk-based asset management approach to ensure that States have a strategic and systematic process for operating, preserving, and improving physical assets on the NHS. It focuses on engineering and economic analysis using quality information to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve a desired state of good repair over the lifecycle of the assets at minimum possible cost. The intent of this approach is to better manage system condition and performance.

<u>The National Highway System (NHS)</u>

The Federal Government has periodically defined and focused resources on the roads that were critical to national interests and that enhanced mobility, security, economic growth, and quality of life. Each time, the decision was made to emphasize a limited network of roads of critical national priority – the Federal-aid system (1921), the Interstate System (1956), and the National Highway System (1995). MAP-21 defined the NHS as a network composed of the Interstate System, all principal arterials, intermodal connectors, and roads important to national defense.

The FAST Act maintains this network and has added provisions for removing some principal arterials from the NHS after review and reclassification by the States and FHWA.

The NHS totals approximately 220,000 miles. The NHS provides mobility to the vast majority of the Nation's population and almost all of its commerce. It supports national defense and promotes intermodal connectivity. While NHS mileage is only a small portion of the nation's overall public road mileage, it carries 58 percent of all vehicular traffic. The majority of truck-borne freight uses it at some point in its journey. While it comprises 53 percent of U.S. highway border crossings, it handles 98 percent of the value of total truck trade with Canada and Mexico.

The key elements of NHS include:

- **Principal Arterials** (including the Interstate System) serving regional and national needs as conduits for major traffic flow and freight movement. In urban areas, all high volume corridors are included in the NHS. In rural areas, the NHS carries over 47 percent of all vehicle miles traveled and provides critical access for jobs, health care, and commerce.
- **Intermodal Connectors** providing access between major intermodal facilities and the principal arterial system. These roads are often the important "last mile" connecting critical intermodal facilities, such as rail, bus, ports, etc. This also provides critical access for jobs, health care, and commerce.
- **Strategic Highway Network Roadways** (STRAHNET) providing defense access, network continuity, and emergency capabilities for defense purposes. It contains all of the routes, including connectors to major military installations, designated by the Department of Defense as essential for national defense.
- **Border Crossings on Principal Arterials** providing vital links with our largest trading partners. Maintaining efficient and effective transportation system connections to U.S. ports of entry is essential for global competitiveness and U.S. economic growth.

Eligibility:
NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving infrastructure condition, safety, congestion reduction, system reliability, or freight movement on the NHS, and be consistent with metropolitan and statewide planning requirements. Eligible activities include:

- Construction, reconstruction, resurfacing, restoration, rehabilitation, preservation, operational improvements, and protection against extreme events of NHS segments.
- Construction, replacement, rehabilitation, preservation, and protection (including scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) of NHS bridges and tunnels.
- Reconstruction, resurfacing, restoration, rehabilitation, or preservation of a bridge on a Federal-aid highway that is not on the NHS.
- Inspection and evaluation of bridges and tunnels on the NHS and inspection and evaluation of other NHS highway infrastructure assets.
- Training of bridge and tunnel inspectors.
- Construction, rehabilitation, or replacement of existing ferry boats and facilities, including approaches that connect road segments of the NHS.
- Construction, reconstruction, resurfacing, restoration, rehabilitation, and preservation of, and operational improvements for, a Federal-aid highway not on the NHS, and

construction of a transit project eligible for assistance under chapter 53 of title 49, if the project is in the same corridor and in proximity to a fully access-controlled NHS route, if the improvement is more cost-effective (as determined by a benefit-cost analysis) than an NHS improvement, and will reduce delays or produce travel time savings on the NHS route and improve regional traffic flow.

- Bicycle transportation and pedestrian walkways.
- Highway safety improvements on the NHS.
- Capital and operating costs for traffic and traveler information, monitoring, management, and control facilities and programs.
- Development and implementation of a State NHS Asset Management Plan including data collection, maintenance and integration, software costs, and equipment costs.
- Infrastructure-based intelligent transportation systems capital improvements, including the installation of vehicle-to-vehicle-infrastructure communication equipment.
- Environmental restoration and pollution abatement.
- Control of noxious weeds and establishment of native species.
- Environmental mitigation related to NHPP projects.
- Construction of publicly owned intracity or intercity bus terminals servicing the NHS.
- Subsidy and administrative costs associated with providing Federal credit assistance for Transportation Infrastructure Finance and Innovation Act TIFIA projects.
- Projects to reduce the risk of failure of critical infrastructure in the State whose incapacity or failure would have a debilitating impact on national or regional economic security, national or regional energy security, national or regional public health or safety, or any combination of those matters.
- Payments made pursuant to a long term concession agreement, such as availability payments.

Funding:
Funds are apportioned by formula and the majority are subject to the overall Federal-aid obligation limitation. State DOTs can spend NHPP funds on eligible projects on the NHS that support progress toward the achievement of national performance goals. Projects must be included in the Statewide Transportation Improvement Program (STIP) and in the Transportation Improvement Program (TIP) for urbanized areas.

Two percent of each State's NHPP apportionment is set aside for State Planning and Research.

Federal Share:
The Federal government generally provides 90 percent of eligible project costs of projects on the Interstate system that do not add single occupant vehicle capacity. Otherwise, the federal share is generally 80 percent of eligible project costs of projects on the NHS.

What Does This Funding Level Support?

Funding the NHPP program at $23.26 billion in FY 2018 supports continued progress in achieving a state of good repair and improved operations of the NHS.

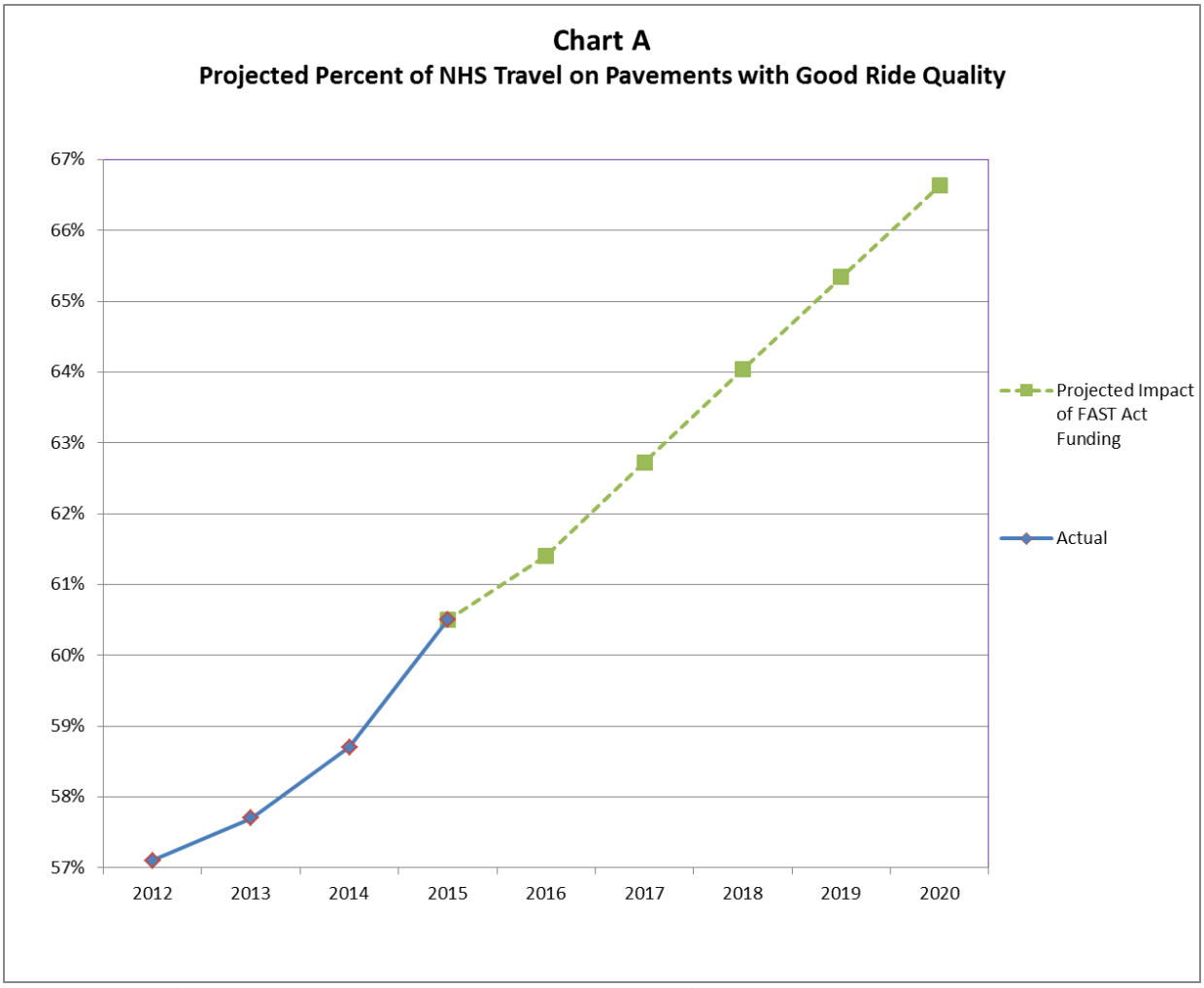
Previous programs that were focused on the NHS significantly improved the condition of the NHS. The NHPP program will continue to focus federal funds to address national performance goals for the NHS. Among these are the condition of pavements and bridges. Past performance has demonstrated that sustained investment in our Nation's roads and bridges leads to better roadway and bridge conditions. A couple examples of this include:

- The share of travel on NHS pavements with good ride quality rose from 48 percent in 2001 to 60 percent in 2015 despite MAP-21 increasing NHS mileage by almost 60,000 miles. Bringing pavements up to a state of good repair yields benefits to system users in the form of decreased wear and tear on vehicles and resulting repair costs; reduced traveler delays; and lower crash rates.

- Even as the total number of NHS bridges in the Nation's inventory increased from 116,144 in 2007 to 144,610 in 2016, the percentage of NHS bridges classified as structurally deficient dropped from 5.5 percent to 3.6 percent. Similarly, the percentage of the deck area (a measure of bridge size) on NHS bridges classified as structurally deficient has dropped from 8.4 percent in 2007 to 5.3 percent in 2016.

In addition to continued funding, the NHPP has performance provisions that will improve investment decision-making through a greater level of accountability for States to improve or preserve the condition of NHS pavements and bridges and the performance of the system. These provisions require States to carry out a risk-based asset management process to monitor and evaluate conditions, establish future condition targets, plan investment strategies, and program funding in support of these strategies. The NHPP has additional requirements for States to maintain minimum levels of condition for NHS bridges and interstate pavements and to make significant progress toward the achievement of their NHPP condition and performance targets. The rulemaking to implement these new requirements is currently under review by the new Administration.

In 2015, 60 percent of NHS vehicle miles travelled occurred on pavements with good ride quality. As shown in Chart A, the proposed FAST Act investment level for NHPP is projected to increase this share to almost 67 percent by 2020. This forecast is based on analyses developed for the biennial C&P report, and assumes a mix of highway and bridge investments generally consistent with recent trends. The increased funding requested for the NHPP program relative to the FY 2015 level is projected to increase this share by almost 1 percentage point by 2020. Given that the NHS carries a majority of all vehicular traffic, this translates into 9 billion more vehicle miles travelled occurring on pavements with good ride quality.

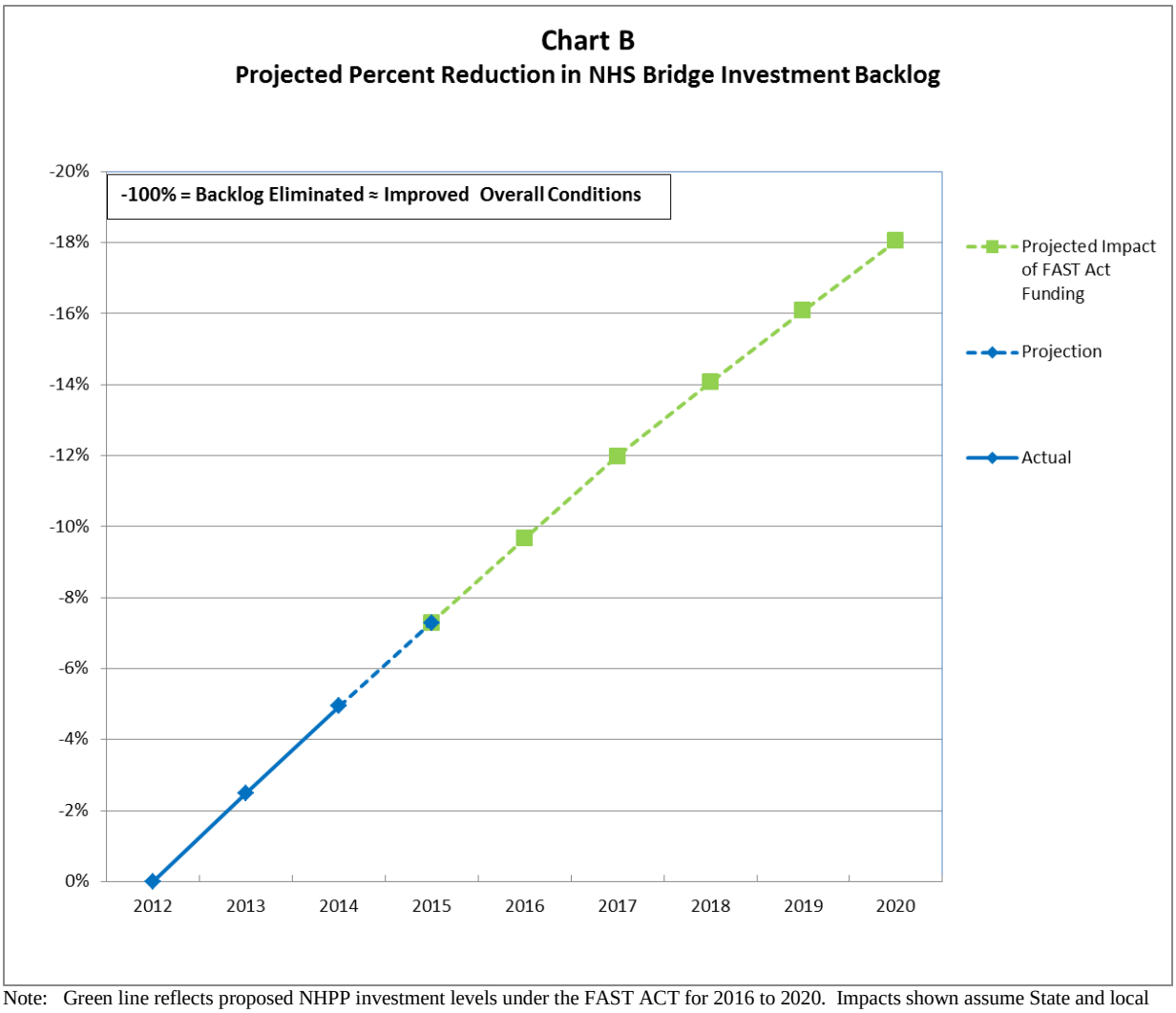


Note: Green line reflects proposed NHPP investment levels under the FAST Act for 2016 to 2020. Impacts shown assume State and local highway capital spending patterns are consistent with recent years, but that a greater share of national investment is directed towards improving operational performance for freight movements

Each biennial C&P report identifies a backlog of needed bridge rehabilitation investments, consisting of all potential improvements to bridges that appear to be cost-beneficial, based solely on their current conditions. Any reductions in this backlog over time would reflect improvements to overall bridge conditions; increases in this backlog would be consistent with a worsening of system-wide bridge conditions. Based on analyses developed for the latest biennial C&P report, the portion of the backlog attributable to bridges on the enhanced NHS was estimated to be $74.2 billion. The proposed investment level for NHPP is projected to help reduce this economic investment backlog for NHS bridges by 18 percent by 2020, as shown in Chart B that follows.

An objective of the 2015 C&P report's Improve Highway Conditions and Performance scenario was to eliminate the NHS bridge investment backlog by 2032. Assuming a steady glidepath of improvement, this scenario would reduce the backlog by 40 percent by 2020. The proposed FAST Act investment level is projected to achieve over three-sevenths of the progress reflected under this idealized scenario for the period 2015 to 2020, representing significant progress towards achieving a state of good repair for NHS bridges. However, this progress is only a down

payment towards achieving a state of good repair for NHS bridges. This is an ongoing need that will require continuing efforts and funding to address.



Note: Green line reflects proposed NHPP investment levels under the FAST ACT for 2016 to 2020. Impacts shown assume State and local highway capital spending patterns are consistent with recent years, but that a greater share of national investment is directed towards improving operational improvements for freight moveements.

Charts A and B assume that future State and local investment patterns continue recent trends. If recent trends for the relative amounts of funds spent on bridges and pavements change, then trends in Charts A and B would also change.

Future pavement and bridge performance will also be affected by other factors, including the overall level of highway capital investment funded by States and local governments as well as future changes in the prices of highway construction materials. To the extent that future State and local highway capital spending does not keep pace with inflation, this would negatively affect future highway and bridge performance.

What Benefits Will Be Provided To The American Public Through This Request?

Preserving and improving the NHS keeps America's highways and bridges safe, supports U.S. economic world trade competiveness, and improves the U.S. economy. The NHPP emphasizes preservation of the NHS while giving States the flexibility to make additional investments to enhance NHS condition and operational performance and to build new capacity while holding them accountable to minimum infrastructure condition requirements and the achievement of NHPP condition and performance targets.

The NHPP addresses all areas of the United States, including mobility and access in rural areas, ensuring that improvements to the NHS benefit both urban and rural settings. It creates employment opportunities to support development of a skilled and diverse transportation workforce through FHWA's existing On-the-Job Training and workforce development programs. The public investment in transportation will be more effectively invested through improved decision-making as a result of an increased focus on national goals and a greater level of accountability on system condition and performance.

Executive Summary
Surface Transportation Block Grant Program

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 budget request of $11.67 billion for the Surface Transportation Block Grant Program (STBG) provides flexible funding that States and localities can use to improve the condition and performance of their roads and bridges through a wide range of eligible projects. Our request is a slight increase over the FY 2016 level of $11.16 billion and the FY 2017 level of $11.42 billion.

What Is This Program And Why Is It Necessary?
The STBG is a formula-based program that helps States and localities to invest in Federal-aid highways and support safe, multimodal transportation networks within communities.

The FAST Act amended the Surface Transportation Program, which was first authorized in ISTEA, by renaming the program the Surface Transportation Block Grant (STBG) Program to acknowledge that this program has the greatest flexibility of FHWA's core highway programs and to better align the name with how the program is (and has been) administered. The FAST Act also sets aside funding for Transportation Alternatives and Recreational Trails. Whereas the National Highway Performance Program (NHPP) program is limited to the approximately 220,000 mile National Highway System (NHS); the STBG program is available for the roughly 1,000,000 miles of Federal-aid highways, for bridges on any public road, and for transit capital projects. This program gives transportation agencies, local governments, and communities the ability to target funding to address State and local priorities.

What Does This Funding Level Support?
Funding the STBG program at $11.67 billion in FY 2018 supports progress towards improving the condition and performance of Federal-aid highways.

This program provides flexible funding that States and localities can use for projects to preserve and improve the condition and performance on any Federal-aid highway, bridges on any public road, and transit capital projects, including intercity bus terminals and vehicles. Additionaly, this program will develop and improve interconnected, multimodal transportation networks, help improve roadway safety for all road users, especially pedestrians and bicyclists, improve air quality, reduce congestion, foster affordable transportation, and improve quality of life.

What Benefits Will Be Provided To The American Public Through This Request?
The flexibility of the STBG provides transportation agencies with the ability to target funding to State and local priorities. It also provides incentives for Metropolitan Planning Organizations (MPOs) serving urbanized areas over 200,000 in population to improve decision making through encouragement of more equitable and regional approaches to decision making.

STBG increases mobility, access to community resources, and improves quality of life for all ages, abilities, and incomes. Projects funded through this program enjoy broad popularity with communities across the country.

Detailed Justification
Surface Transportation Block Grant Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Surface Transportation Block Grant Program ($11.67 billion)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Surface Transportation Block Grant Program				
Surface Transportation Block Grant Program	11,162,565	11,424,412	11,667,787	243,375
Total	**11,162,565**	**11,424,412**	**11,667,787**	**243,375**

What Is This Program And Why Is It Necessary?

An efficient transportation system is critical to maintaining the competitiveness of our economy. The highly developed U.S. transportation system played a key role in allowing GDP per capita to grow faster in the U.S. than comparable rates abroad. Additional transportation infrastructure investment is needed. This program will give transportation agencies the ability to target funding to State and local priorities.

While the NHS is the Nation's primary highway system, a second level of roadways plays an important role in funneling the flow of people and goods onto the NHS. These roads connect the Nation's communities, high-tech research facilities, farms, and recreational areas to the NHS and play an important role in our nation's vitality and ability to move goods and people efficiently throughout the nation.

The STBG program is the most flexible of the core highway programs. While the NHPP is limited to the approximately 220,000 mile NHS, the STBG program is available for the roughly 1,000,000 miles of Federal-aid highways that include those public roads that are not functionally classified as rural minor collectors or local roads and for bridges on any public road and for pedestrian and bicycle facilities and projects eligible under the Transportation Alternatives set-aside. It provides funding to both urban and rural areas of the States. The biennial Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance report to Congress (2015 C&P report) identified significant opportunities for additional investment to help achieve a state of good repair and improve the operational performance of Federal-aid highways.

The STBG provides additional eligibilities for transit capital projects, transportation alternative type projects, recreational trail projects, surface transportation projects within port terminal boundaries, truck parking facilities projects, and planning and research. STBG funds can be used to address local needs rather than those of the NHS. Many States will sub-grant STBG funds to cities, counties, and towns to help them connect to the nation's transportation system. STBG funds improve access and connectivity to jobs and services in rural areas and reduce congestion and improve quality of life in urban areas. These funds give States the flexibility to

make decisions on transportation investments. STBG funds can be used to improve highway infrastructure condition and performance on and off the NHS.

The STBG provides funds to the States to invest in Federal-aid eligible highways to replace, rehabilitate, and preserve roads, bridges, and other highway infrastructure and to expand or build new transportation facilities. The STBG provides a set-aside to rehabilitate or replace bridges on public roads that are not located on a Federal-aid highway. Other illustrative activities include the removal of bottlenecks; projects and strategies to support congestion pricing, electronic toll collection, travel demand management strategies and programs; collection and dissemination of real-time travel information; deployment and integration of Intelligent Transportation System (ITS) technologies; and greater use of traffic incident management practices in corridors. Additionally, these funds will help to enhance access to education resources, health care, recreation, and other quality of life needs in rural areas.

Under 23 U.S.C. Section 504(e), States may obligate STBG funds for surface transportation workforce development, training, and education. The application of 504(e) funds may be used to support a broad range of training and education activities, including targeted workforce skilled training; training for State and local transportation agency employees (excluding salaries); university or community college support; outreach to promote surface transportation career awareness, among others. The 504(e) funding may also be used to supplement On-the-Job-Training Supportive Services activities authorized under 23 U.S.C. Section 140(b), which are targeted to address the historical under-representation of minorities, women, and other disadvantaged individuals these groups in highway construction skilled crafts.

A long term commitment to funding this program has resulted in the following benefits:

- The share of vehicle miles travelled on Federal-aid highway pavements with good ride quality rose from 43 percent in 2000 to 49 percent in 2015.
- The percentage of bridges classified as structurally deficient dropped from 12.3 percent in 2007 to 9.1 percent in 2016 even as the total number of bridges in the Nation's inventory increased from 599,880 to 614,387. Similarly, the percentage of the deck area (a measure of bridge size) on bridges classified as structurally deficient has dropped from 9.5 percent in 2007 to 6.3 in 2016.

STBG funds are primarily eligible for use on projects on Federal-aid highways that include those public roads that are not functionally classified as rural minor collectors or local roads. Federal-aid highways are roads on the National Highway System (including the Interstate system), other arterial roads, urban collectors, and major rural collectors. It accounts for approximately one million of the Nation’s four million miles of public roads. STBG funds also may be used on:

- Set-aside funding for bridges on public roads that are not Federal-aid highways.
- Pedestrian and bicycle facilities, trails, and projects eligible under the Transportation Alternatives set-aside.
- Fifteen percent of the funds suballocated for areas with a population of less than 5,000 may be used on rural minor collectors.
- Appalachian local access roads designated in 40 U.S.C. 14501.

Eligibility:

- Construction of highways, bridges, tunnels, including designated routes of the Appalachian development highway system and local access roads under section 14501 of title 40; ferry boats and terminal facilities eligible for funding under section 129(c); transit capital projects eligible for assistance under chapter 53 of title 49; infrastructure-based intelligent transportation systems capital improvements, including the installation of vehicle-to-infrastructure communication equipment; truck parking facilities eligible for funding under section 1401 of MAP-21 (23 U.S.C. 137 note); and border infrastructure projects eligible for funding under section 1303 of SAFETEA-LU.
- Operational improvements and capital and operating costs for traffic monitoring, management, and control facilities and programs.
- Environmental measures eligible under sections 119(g), 328, and 329 and transportation control measures listed in section 108(f)(1)(A) (other than clause (xvi) of that section) of the Clean Air Act (42 U.S.C. 7408(f)(1)(A)).
- Highway and transit safety infrastructure improvements and programs, including railway-highway grade crossings.
- Fringe and corridor parking facilities and programs in accordance with section 137 and carpool projects in accordance with section 146.
- Recreational trails projects eligible for funding under section 206, pedestrian and bicycle projects in accordance with section 217 (including modifications to comply with accessibility requirements under the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.)), and the safe routes to school program under section 1404 of SAFETEA-LU (23 U.S.C. 402 note).
- Planning, design, or construction of boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.
- Development and implementation of a State asset management plan for the National Highway System and a performance-based management program for other public roads.
- Protection (including painting, scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) for bridges (including approaches to bridges and other elevated structures) and tunnels on public roads, and inspection and evaluation of bridges and tunnels and other highway assets.
- Surface transportation planning programs, highway and transit research and development and technology transfer programs, and workforce development, training, and education under chapter 5 of title 23 U.S.C.
- Surface transportation infrastructure modifications to facilitate direct intermodal interchange, transfer, and access into and out of a port terminal.
- Projects and strategies designed to support congestion pricing, including electronic toll collection and travel demand management strategies and programs.
- At the request of a State, and upon Secretarial approval of credit assistance under chapter 6 of title 23, subsidy and administrative costs necessary to provide an eligible entity Federal credit assistance under chapter 6 of title 23 with respect to a project eligible for assistance under section 133 of title 23.
- The creation and operation by a State of an office to assist in the design, implementation, and oversight of public-private partnerships eligible to receive funding under this title and chapter 53 of title 49, and the payment of a stipend to unsuccessful private bidders to

offset their proposal development costs, if necessary to encourage robust competition in public-private partnership procurements.

- Any type of project eligible under this section as in effect on the day before the date of enactment of FAST Act, including projects described under section 101(a)(29) as in effect on such day.
- Construction of any bridge in accordance with 23 U.S.C. 144(f) that replaces any low water crossing (regardless of the length of the low water crossing); any bridge that was destroyed prior to January 1, 1965; any ferry that was in existence on January 1, 1984; or any road bridge that is rendered obsolete as a result of a Corps of Engineers flood control or channelization project and is not rebuilt with funds from the Corps of Engineers.
- Actions in accordance with the definition and conditions in 23 U.S.C. 144(g) to preserve or reduce the impact of a project on the historic integrity of a historic bridge if the load capacity and safety features of the historic bridge are adequate to serve the intended use for the life of the historic bridge.

The eligible activities for the Transportation Alternatives set-aside include but are not limited to:

- Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act.
- Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers.
- Conversion and use of abandoned railroad corridors for trails.
- Construction of turnouts, overlooks, and viewing areas.
- Community improvement activities, which include but are not limited to:
    - Inventory, control, or removal of outdoor advertising.
    - Historic preservation and rehabilitation of historic transportation facilities.
    - Vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control.
    - Archaeological activities relating to impacts from implementation of transportation projects eligible under this title.
- Any environmental mitigation activity, including pollution prevention, abatement, and mitigation to address stormwater management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff; reduce vehicle-caused wildlife mortality; or restore and maintain connectivity among terrestrial or aquatic habitats.
- Recreational trails, including a set-aside for the recreational trails program.
- Safe routes to school projects.
- Planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

Funding:
Funds are apportioned by formula and are subject to the overall Federal-aid obligation limitation.

The following amounts are set aside from each State's STBG apportionment:

- 2 percent for State Planning and Research (SP&R).
- An amount for Tranportation Alternatives this is $835 million in FY 2016 and FY 2017 and $850 million in FY 2018 through FY 2020.
- 15 percent of the State's FY 2009 Highway Bridge Program apportionment for bridges on public roads that are not Federal-aid highways. This set aside may not be taken from the suballocations described below.

The STBG suballocates 51 percent (in FY 2016, increases by 1 percent each year through FY 2020) of a State's annual apportionment, after the SP&R and Transportation Alternatives set-asides, for obligation in the following areas in proportion to their relative shares of a State's population--

- Urbanized areas with population greater than 200,000.
- Areas with population greater than 5,000 but no more than 200,000.
- Areas with population of 5,000 or less.

The remaining 49 percent (in FY 2016, decreases by 1 percent each year through FY 2020) may be used in any area of the State.

- The Governor of a land border State may designate up to 5 percent of STBG funds available for use in any area of the State for border infrastructure projects eligible under the SAFETEA-LU border program.
- STBG funds available for use in any area of the State are subject to transfer penalties under section 154 (Open Container Requirements) and 164 (Minimum Penalties for Repeat DWI or DUI Offenders) of title 23, USC, which then at the election of the State are released as HSIP funds and/or transferred to the National Highway Traffic Safety Administration.

The Transportation Alternaitves set-aside suballocates 50 percent of funds (after the set-aside for the recreational trails program, unless a State opts out) for obligation in the following areas in proportion to their relative shares of a State's population--

- Urbanized areas with population greater than 200,000.
- Areas with population greater than 5,000 no more than 200,000.
- Areas with population of 5,000 or less.

The remaining 50 percent may be used in any area of the State.

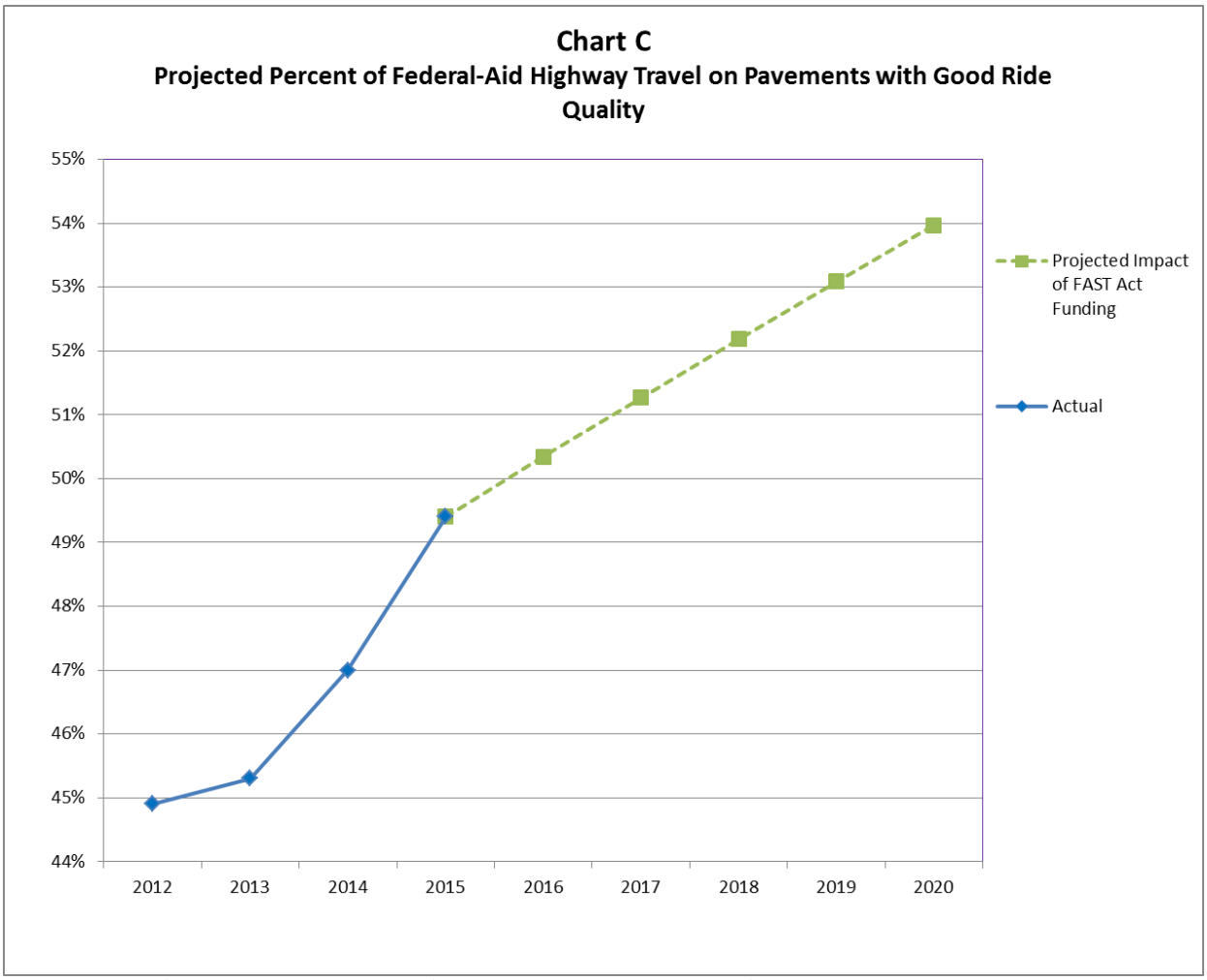
Federal Share:
The Federal government generally provides 90 percent of eligible project costs for projects on the Interstate system that do not add single occupant vehicle capacity. Otherwise, the federal share is generally 80 percent of eligible project costs, with a sliding scale providing a higher Federal share mostly affecting western States.

What Does This Funding Level Support?

Funding the STBG program at $11.67 billion in FY 2018 supports progress in achieving improved conditions and performance of Federal-aid highways. Our request will provide flexible funding that may be used by States and localities for projects to preserve and improve

Federal-aid highways, bridges on any public road, and transit capital projects, including intercity bus terminals and vehicles.

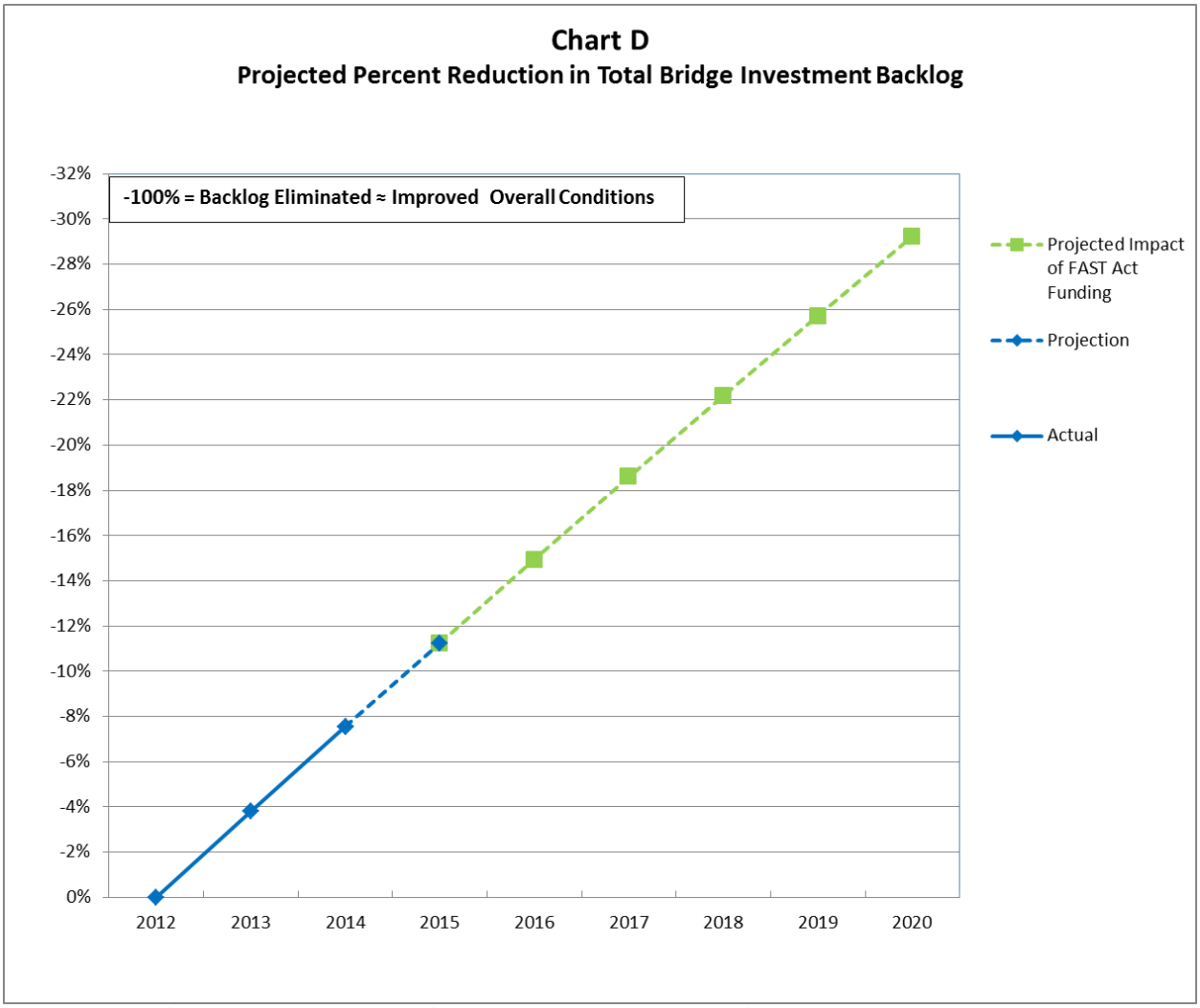
In 2015, 49 percent of vehicle miles travelled on Federal-aid highways occurred on pavements with good ride quality. As shown in Chart C, the proposed FAST Act investment level is projected to increase this share to almost 54 percent by 2020. This forecast is based on analyses developed for the biennial C&P report, and takes into account increased funding requested for the STBG and NHPP programs. The proposed funding levels under the FAST Act alone is projected to increase this share by almost 1 percentage point by 2020, which translates into 17 billion more vehicle miles travelled occurring on pavements with good ride quality.



Note: Green line reflects Federal investment levels for 2016 to 2020 under the FAST Act for STBG and NHPP; impacts shown assume State and local highway capital spending patterns are consistent with recent years, but that a greater share of national investment is directed towards improving operational performance for freight movements.

Each biennial C&P report identifies a backlog of needed bridge rehabilitation investments, consisting of all potential improvements to bridges that appear to be cost-beneficial, based solely on their current conditions. Any reductions in this backlog over time would reflect improvements to overall bridge conditions; increases in this backlog would be consistent with a worsening of system-wide bridge conditions. The 2015 C&P report estimated this backlog to be

$123.1 billion. The proposed funding levels under the FAST Act, including funding requested for the STBG and NHPP programs, is projected to help reduce this economic investment backlog for bridges by 29 percent by 2020, as shown in Chart D that follows.



Note: Green line reflects Federal investment levels for 2016 to 2020 under the FAST Act for STBG and NHPP; impacts shown assume State and local highway capital spending patterns are consistent with recent years, but that a greater share of national investment is directed towards improving operational performance for freight movements.

An objective of the 2015 C&P report's Improve Highway Conditions and Performance scenario was to eliminate the bridge investment backlog by 2032. Assuming a steady glidepath of improvement, this scenario would reduce the backlog by 40 percent by 2020. The proposed FAST Act investment level for STBG and NHPP combined is projected to achieve roughly five-sevenths of the progress reflected under this idealized scenario for the period 2015 to 2020, representing significant progress towards achieving a state of good repair for bridges. However, this progress is only a down payment towards achieving a state of good repair for our Nation's bridges. This is an ongoing need that will require continuing efforts and funding to address.

Charts C and D assume that future State and local investment patterns continue recent trends. As STBG is the most flexible of FHWA's core highway programs. How States choose to utilize

their STBG funds will affect the relative amount of progress made on these different measures of performance.

Other factors will also affect future performance, including the overall level of State and locally funded highway capital investment, as well as future changes in the prices of highway construction materials. To the extent that future State and local highway capital spending does not keep pace with inflation, this would negatively affect future highway and bridge performance.

What Benefits Will Be Provided To The American Public Through This Request?

An efficient transportation system is critical to maintaining our economic competitiveness. The highly developed U.S. transportation system played a key role in allowing GDP per capita to grow faster in the U.S. over the past century than in countries with less developed transportation systems. However, additional transportation infrastructure investment is needed to support a globally competitive economy.

The STBG responds to the public's desire to increase mobility, access to community resources, and improve quality of life for all ages, abilities, and incomes. These projects are vital to improving the safety of all roadway users, including pedestrians and bicyclists, as well as providing accessible transportation choices and connections. The Transportation Alternatives set-aside provides States and communities opportunities to fund small projects at the community level that might not otherwise be funded.

It supports the development of a skilled and diverse transportation workforce through the use of 504(e) funds to supplement and expand upon FHWA's existing On-the-Job Training and workforce development programs.

The STBG is the most flexible of the core highway programs. This flexibility provides transportation agencies with the ability to target funding to State and local priorities. Furthermore, the STBG targets a significant portion of the funds to both rural and urban areas ensuring that all areas of the U.S. have an opportunity to improve their transportation priorities.

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Executive Summary
Congestion Mitigation & Air Quality Improvement Program

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 request level of $2.41 billion for the Congestion Mitigation and Air Quality Improvement (CMAQ) Program will help States and local governments reduce highway congestion and harmful emissions, and also assist many areas in reaching attainment of the National Ambient Air Quality Standards (NAAQS). Our request is a slight increase over the FY 2016 level of $2.31 billion and the FY 2017 level of $2.36 billion.

What Is The Program And Why Is It Necessary?
The CMAQ program provides a funding source for State and local governments to fund transportation projects and programs that help meet the requirements of the Clean Air Act, and that help reduce regional congestion on transportation networks. CMAQ investments support transportation projects that reduce the mobile source emissions for which an area has been designated nonattainment or maintenance for the ozone, carbon monoxide and particulate matter NAAQS by the Environmental Protection Agency (EPA). Many CMAQ-funded projects also reduce highway congestion that impedes economic development.

What Does This Funding Level Support?
The CMAQ program is the only highway program that specifically targets investments to reduce harmful vehicular emissions. An estimated 142.2 million Americans live in places where the levels of one or more air pollutants exceed national air quality standards, threatening public health. The program will continue to help ensure continuity with State and local programming and provide adequate resources to maintain the air quality progress in many areas as they strive towards attainment of the NAAQS.

What Benefits Will Be Provided To The American Public Through This Request?
The CMAQ program provides funding for projects that improve air quality; providing cleaner air and a more healthful environment in areas with air quality challenges. The CMAQ program is the only element of the Federal-aid Highway Program that specifically targets areas with air quality challenges. Through its statutory focus on transportation efforts that reduce harmful emissions, the CMAQ program enhances livability and improves health nationwide through its contributions to attainment and maintenance of the NAAQS that act as a public health benchmark for many of the more densely populated areas of the country.

Detailed Justification
Congestion Mitigation & Air Quality Improvement Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Congestion Mitigation & Air Quality Improvement Program ($2.41 billion)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Congestion Mitigation & Air Quality Improvement Program				
Congestion Mitigation & Air Quality Improvement Program	2,309,060	2,360,308	2,405,187	44,879
Total	**2,309,060**	**2,360,308**	**2,405,187**	**44,879**

What Is This Program And Why Is It Necessary?

The CMAQ Program provides broad flexibility in project selection for States and communities that need to reduce emissions from their transportation sources. The program's statutory focus on congestion- and emissions-reducing efforts is unique in the Federal-aid Highway Program as it seeks to employ tailored transportation investments to combat formidable air quality challenges around the country. Some of the eligible project categories available to States and local governments include:

- Traffic flow improvement projects
- Congestion relief efforts, e.g. high occupancy vehicle/high occupancy toll lanes
- Intermodal freight projects
- Diesel retrofit projects
- Transit capital investments
- Transit and rail operating costs
- Travel demand management strategies
- Bicycle and pedestrian programs
- Vehicle inspection and maintenance programs
- Electric vehicle and natural gas vehicle infrastructure

Projects supported with CMAQ funds must demonstrate the three primary requirements that have been a part of the program since its inception under the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991.

An eligible project must:

- Reduce emissions.
- Be located in or benefit an EPA-designated nonattainment or maintenance area.
- Be identified as a transportation project.

The Federal share for most CMAQ projects, with a few exceptions, is 80 percent. While most States must use program funds in either nonattainment or maintenance areas, States with small

populations in these designated areas, or with none of these areas, have additional flexibility to use CMAQ funds anywhere in the State for any project eligible under the Surface Transportation Block Grant program or CMAQ program.

The CMAQ program establishes a statutory link to funding projects that reduce harmful emissions and contribute to the attainment of the NAAQS. MAP-21 emphasized the importance of reducing emissions of particulate matter with a diameter less than 2.5 microns ($PM_{2.5}$) in areas that are nonattainment or maintenance for the $PM_{2.5}$ NAAQS by setting aside a portion of the CMAQ funds to support projects that would reduce $PM_{2.5}$ emissions. The FAST Act continues this emphasis on reducing $PM_{2.5}$ emissions.

CMAQ is less traditional than other FHWA capital programs, and serves a crossover function between transportation capital investments and environmental stewardship. Projects supported with CMAQ funds are required to demonstrate an emissions reduction projection. In addition, States provide an annual report on all CMAQ investments that covers the fiscal year's obligations of program funds and provides insight on the program's potential impact on air quality, congestion, multimodal choice, and its contribution to a region's quality of life. The program continues to provide incremental benefits through enhanced regional and local air quality, and through contributions to congestion relief. Both these areas—air pollution and highway congestion—are considered to be worsening externalities that affect quality of life in many metropolitan areas of the country.

What Does This Funding Level Support?

Our FY 2018 CMAQ request of $2.41 billion is a slight increase over the FY 2016 and FY 2017 levels. An estimated 142.2 million Americans live in places where the levels of one or more air pollutants exceed national air quality standards, threatening public health. The program will continue to help ensure continuity with State and local programming and provide adequate resources to maintain the air quality progress in many areas as they strive towards attainment of the NAAQS. The $45 million of additional funding over the FY 2017 level will result in approximately 50 more projects that will improve air quality in these areas.

What Benefits Will Be Provided To The American Public Through This Request?

The CMAQ program provides funding for projects that improve air quality; providing cleaner air and a more healthful environment in areas with air quality challenges. The CMAQ program is the only element of the Federal-aid Highway Program that specifically targets areas with air quality challenges. Through its statutory focus on transportation efforts that reduce harmful emissions, the program enhances livability and improves health nationwide through its contributions to attainment and maintenance of the NAAQS that act as a public health benchmark for many of the more densely populated areas of the country.

Since its inception through FY 2015, $33 billion in CMAQ funds have supported more than 32,000 projects that reduced emissions of particulate matter, carbon monoxide, nitrogen oxides, and/or volatile organic compounds. CMAQ funded projects, such as public transit, bicycle and pedestrian facilities that promote alternative transportation options and active living can lead to congestion reduction, air quality improvements and positive health benefits. Many CMAQ projects also can provide additional public health benefits. For example, in addition to

congestion relief, projects that focus on improved traffic flow and system efficiency can lower vehicle crash and injury risk while also reducing traveler stress levels.

Executive Summary
National Highway Freight Program

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 budget requests $1.19 billion for the National Highway Freight Program (NHFP) to provide funding for States to invest in infrastructure and operational improvements that reduce congestion, improve safety and productivity, and strengthen the contribution of the National Highway Freight Network (NHFN) to the economic competiveness of the United States. Key components of the NHFP include: establishment of the NHFN, a requirement for States to develop state freight plans, and encouragement of States to create and involve freight advisory committees in the transportation planning process. Generally, uses of NHFP funds must contribute to the efficient movement of freight on the NHFN and be identified in a Sate's freight investment plan. Our FY 2018 request is a slight increase over the FY 2016 level of $1.14 billion and the FY 2017 level of $1.09 billion.

What Is The Program And Why Is It Necessary?
The NHFP provides funds to the States on a formula basis. Its purpose is to improve efficient movement of freight on the NHFN. The program strategically directs resources and policies to present solutions and strategies to address the infrastructure, institutional, and financial bottlenecks that hinder the safe and efficient movement of goods.

Investment in our nation's transportation freight infrastructure is needed right now if we expect to maintain a global competitive edge. By 2045, the nation's population is projected to increase to 389 million people, compared to 321 million in 2015. (United States Census 2014 National Population Projects). To support our projected population and economic growth, freight movements across all modes are expected to grow by roughly 42 percent by the year 2040. (Freight Analysis Framework).

What Does This Funding Level Support?
Funding the NHFP at $1.19 billion in FY 2018 supports projects to address expected growth in freight traffic and the need for more and better-directed investment on the freight infrastructure, consistent with the analyses presented in the biennial Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance report to Congress (2015 C&P report).

What Benefits Will Be Provided To The American Public Through This Request?
A national highway freight program with multi-year authorization offers States and their private-sector partners a path forward to make real improvements in freight infrastructure and operations and will yield a high return on federal investment for the economy and for public benefits in safety, mobility, health and the environment. Investments in freight infrastructure have a profoundly positive effect on the national economy, create jobs, and support economic growth and competitiveness.

Detailed Justification
National Highway Freight Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – National Highway Freight Program ($1.19 billion)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
National Highway Freight Program				
National Highway Freight Program	1,140,250	1,090,674	1,189,826	99,152
Total	**1,140,250**	**1,090,674**	**1,189,826**	**99,152**

What Is This Program And Why Is It Necessary?

The National Highway Freight program is a formula based program which provides funding to States to invest in infrastructure and operational improvements that reduce congestion, improve safety and productivity, and strengthen the contribution of the NHFN to the economic competiveness of the United States.

This justification requests that the NHFP be funded at $1.19 billion to improve efficient movement of freight on the NHFN. The NHFP was established by the FAST ACT.

Key features of the program include:

- Establishment of the NHFN;
- Requirement for States to develop comprehensive State Freight Plans; and
- Encouragement by US DOT directed at each State to create a multi-modal freight advisory committee with public and private sector representatives.

National Highway Freight Network:
The FAST Act requires the FHWA Administrator to establish a NHFN to strategically direct Federal resources and policies toward improved performance of the Network. FAST Act Section 1103 amends 23 U.S.C. 101(a)(15) to include a definition of the NHFN established under 23 U.S.C. 167. The NHFN includes the following subsystem of roadways:

A. Primary Highway Freight System (PHFS) – This is a network of highways identified as the most critical highway portions of the U.S. freight transportation system determined by measureable and objective national data. The initial designation of the PHFS is the 41,518 centerline mile network identified as a comprehensive network during the development of the highway-only Primary Freight Network (PFN) under 23 U.S.C. 167(d). The comprehensive network includes 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads. Note: this network differs from the PFN that was ultimately designated to satisfy the MAP-21 requirement in October 2015. The FHWA Administrator is required to re-designate the PHFS every 5 years. Each re-designation is limited to a maximum 3 percent increase in the total mileage.

B. Interstate Routes not on the PHFS – These highways consist of the remaining portion of interstate roads not designated as part of the PHFS. These routes provide important continuity and access to freight transportation facilities. Nationwide, these portions amount to 9,511 centerline miles of Interstate.

C. Critical Rural Freight Corridors (CRFC) – These are rural principal arterials which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities. States are responsible for designating public roads in their state as CRFCs. A State may designate a public road within the borders of the State as a CRFC if the public road is not in an urbanized area, and;

(1) is a rural principal arterial roadway and has a minimum of 25 percent of the annual average daily traffic of the road measured in passenger vehicle equivalent units from trucks (Federal Highway Administration vehicle class 8 to 13);
(2) provides access to energy exploration, development, installation, or production areas;
(3) connects the primary highway freight system, a roadway described in subparagraph (1) or (2), or the Interstate System to facilities that handle more than—
i. 50,000 20-foot equivalent units per year; or
ii. 500,000 tons per year of bulk commodities;
(4) provides access to--
i. a grain elevator;
ii. an agricultural facility;
iii. a mining facility;
iv. a forestry facility; or
v. an intermodal facility;
(5) connects to an international port of entry;
(6) provides access to significant air, rail, water, or other freight facilities in the State; or
(7) is determined by the State to be vital to improving the efficient movement of freight of importance to the economy of the State.

The designation of the CRFC is limited to a maximum of 150 miles of highway or 20 percent of the primary highway freight system mileage in the State, whichever is greater.

D. Critical Urban Freight Corridors (CUFC) – These are public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities. In an urbanized area with a population of 500,000 or more, the metropolitan planning organization (MPO), in consultation with the State, is responsible for designating the CUFC. In an urbanized area with a population of less than 500,000, the State, in consultation with the MPO, is responsible for designating the CUFC. Regardless of population, designation of a public road as a CUFC must be in an urbanized area; and

(1) connects an intermodal facility to;
i. the primary highway freight system;

ii. the Interstate System; or
iii. an intermodal freight facility;

(2) is located within a corridor of a route on the primary highway freight system and provides an alternative highway option important to goods movement;

(3) serves a major freight generator, logistic center, or manufacturing and warehouse industrial land; or

(4) is important to the movement of freight within the region, as determined by the metropolitan planning organization or the State.

The designation in limited to a maximum of 75 miles of highway or 10 percent of the PHFS mileage in the State, whichever is greater.

States with PHFS mileage greater than or equal to 2 percent, calculated based on the proportion of total designated PHFS mileage in the State to the total mileage of the PHFS in all States, are considered "high mileage States" with respect to the PHFS and may obligate funds for projects on the PHFS, the CRFC and the CUFC. States with PHFS mileage of less than 2 percent are considered "low mileage States" with respect to the PHFS and may obligate funds for projects on all portions of the NHFN (the PHFS, the CRFC, the CUFC, and the rest of the Interstate System in their State).

High Mileage States (PHFS > 2%):	**Low Mileage States (PHFS < 2%):**	
Alaska	Alabama	Nebraska
Arizona	Arkansas	Nevada
California	Colorado	New Hampshire
Florida	Connecticut	New Jersey
Georgia	Delaware	North Dakota
Illinois	Dist. of Columbia	Oklahoma
Indiana	Hawaii	Oregon
Missouri	Idaho	Puerto Rico
Montana	Iowa	Rhode Island
New Mexico	Kansas	South Carolina
New York	Kentucky	South Dakota
North Carolina	Louisiana	Vermont
Ohio	Maine	Washington
Pennsylvania	Maryland	West Virginia
Tennessee	Massachusetts	Wisconsin
Texas	Michigan	Wyoming
Utah	Minnesota	
Virginia	Mississippi	

As of October 1, 2015, the NHFN consists of the PHFS and other Interstate portions not on the PHFS, for a total of 51,029 centerline miles. The NHFN is expected to increase with the designation of CRFCs and CUFCs. States and MPOs are allowed to designate these Corridors on a rolling basis, and must certify to the FHWA Administrator that the designated corridors

meet the requirements of the applicable provision (CRFCs and CUFCs). Further guidance will be developed on the process for identification, designation, and certification of the CRFCs and CUFCs.

State Freight Plan and State Freight Advisory Committee:
Freight planning is an important component of statewide and metropolitan transportation planning processes. MAP-21 directed the Department to encourage States to develop a freight plan under 23 U.S.C. 167. State freight planning is covered under the FAST Act in a different provision of law: Section 8001 of the FAST Act, Subsection 70201 of Subtitle IX of title 49 requires e*ach* State that receives NHFP funding to develop a comprehensive freight plan that provides for the immediate and long-range planning activities and investments in the State. The plan may be developed separate from or incorporated into the statewide strategic long-range transportation plan required by 23 U.S.C. 135. Among the factors that must be included in the State freight plan is a description of how the funds under section 167 of title 23 would be invested and matched. In addition, an investment plan component must include a list of priority projects with the stipulation that the investment plan must show how funding for completion of the project or an identified phase of a project in the investment plan can reasonably be anticipated to be available for the project within the time period identified in the freight investment plan. Interim State freight plan guidance was developed under MAP-21 section 1118.

Section 8001 of the FAST Act also encourages each State to establish a freight advisory committee consisting of a representative cross-section of public and private sector freight stakeholders, including representatives of ports, shippers, carriers, freight-related associations, the freight industry workforce, the transportation department of the State, and local governments. Under Section 8001, States are required to consult their State freight advisory committee, if applicable, in the development of a State freight plan. Under the NHFP, the Administrator shall provide an opportunity for State freight advisory committees to submit additional miles for consideration during the redesignation of the PHFS. State advisory committee guidance was developed under MAP-21 Section 1117, which was repealed and replaced under the FAST Act. This guidance will be updated to reflect FAST Act changes.

Eligible Projects: Eligible projects shall contribute to the efficient movement of freight on the National Highway Freight Network, and be identified in a freight investment plan included in a state freight plan (December 2017 and after). NHFP funds may be obligated for one or more of the following:

- Development phase activities including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering and design work, and other preconstruction activities.
- Construction, reconstruction, rehabilitation, acquisition of real property (including land relating to the project and improvements to land), construction contingencies, acquisition of equipment, and operational improvements directly relating to improving system performance.
- Intelligent transportation systems and other technology to improve the flow of freight, including intelligent freight transportation systems.
- Efforts to reduce the environmental impacts of freight movement.

- Environmental and community mitigation for freight movement.
- Railway-highway grade separation.
- Geometric improvements to interchanges and ramps.
- Truck-only lanes.
- Climbing and runaway truck lanes.
- Adding or widening of shoulders.
- Truck parking facilities eligible for funding under section 1401 of MAP–21
- Real-time traffic, truck parking, roadway condition, and multimodal transportation information systems.
- Electronic screening and credentialing systems for vehicles, including weigh-in-motion truck inspection technologies.
- Traffic signal optimization, including synchronized and adaptive signals.
- Work zone management and information systems.
- Highway ramp metering.
- Electronic cargo and border security technologies that improve truck freight movement.
- Intelligent transportation systems that would increase truck freight efficiencies inside the boundaries of intermodal facilities.
- Additional road capacity to address highway freight bottlenecks.
- Physical separation of passenger vehicles from commercial motor freight.
- Enhancement of the resiliency of critical highway infrastructure, including highway infrastructure that supports national energy security, to improve the flow of freight.
- A highway or bridge project to improve the flow of freight on the National Highway Freight Network.

In addition, any surface transportation project to improve the flow of freight into and out of a freight intermodal or freight rail facility is an eligible project. There is a cap on the use of NHFP funding for this type of project: For each fiscal year, a State may obligate not more than 10 percent of the total State apportionment under NHFP for freight intermodal or freight rail projects. This limitation applies, but is not limited to, such projects as those within the boundaries of public or private freight rail or water facilities (including ports), and that provide surface transportation infrastructure necessary to facilitate direct intermodal interchange, transfer, and access into or out of the facility.

In addition to the eligible projects identified above, a State may use apportioned funds for eligible costs, including carrying out diesel retrofit or alternative fuel projects under section 149 for class 8 vehicles; conducting analyses and data collection related to the national highway freight program; and costs associated with developing and updating performance targets and reporting to the FHWA Administrator to comply with the freight performance targets established pursuant to 23 USC 150.

Funding:
NHFP funds may be obligated for projects that contribute to the efficient movement of freight on the National Highway Freight Network (NHFN), and are consistent with the planning requirements of sections 134 and 135 of title 23. *B*eginning 2 years after the date of enactment of the FAST Act, a State may not obligate funds apportioned to the State unless the State has

developed a freight plan in accordance to Sec. 70202 of title 49, except that the multimodal component of the plan may be incomplete before an obligation may be made under this section. Projects must be identified in the STIP/TIP and consistent with the Long-Range Statewide Transportation Plan and the Metropolitan Transportation Plan(s). A proportionate share of each State's NHFP funds is set aside for the State's Metropolitan Planning program.

Federal share:
Federal share is in accordance with 23 U.S.C. 120, which is generally an 80 percent federal share. Note that the FAST Act repealed section 1116 of MAP-21, which had offered an increased Federal share for certain projects that demonstrably improved freight movement. [FAST Act §1116(c)]

What Does This Funding Level Support?

Congress set the level of funding in the FAST Act to address needs in the system. The establishment of a National Highway Freight Program with multi-year authorization offering public sector agencies and their private sector partners a path forward to make real improvements in freight infrastructure and operations is unprecedented and yields a high return on federal investment for the economy and for public benefits in safety, mobility, health and the environment. The U.S. population growth, coupled with consumer demand for goods, will continue to drive freight growth. The program will have a significant effect on the ability of the U.S. freight industry to meet the growth in demand in a responsible, effective and sustainable way.

Freight projects are often multimodal, multi-jurisdictional, complex, or involve partnership with the private sector, making them difficult to administer under current federal and State funding programs. Public- and private-sector freight proponents identify these issues along with a lack of predictable federal funds as challenges to implementing freight solutions despite widespread need and a significant backlog of projects.

What Benefits Will Be Provided To The American Public Through This Request?

Investments in freight improve the economy - Investments in freight infrastructure have had a profoundly positive effect on the national economy. Research has documented a highly positive correlation between federal investment in freight and economic growth. Further, these analyses confirm that an efficient, reliable transportation system enables the economic competitiveness that is vital to maintaining economic health and supporting employment for the Nation, States, and localities. For example, disruptions to the speed and reliability of freight transportation add directly and indirectly to businesses costs, export costs, the cost of consumer goods and the ability of industry to support jobs.

Freight Projects Create Jobs and Supports Growth and Sustainability - Investment in freight projects creates jobs, supports economic growth and competitiveness, and can improve safety and the environment. However, freight projects are often complex, involving numerous modes, public and private owners and operators, and diverse funding sources, and do not neatly fit into the design of current funding programs. Public- and private- sector freight proponents identify these characteristics along with a lack of sufficient funds in existing federal programs for freight

projects as challenges to implementing freight solutions. As such, these projects struggle to progress.

Freight Projects Yield a High Return on investment - A multimodal freight program with multi-year authorization offers public-sector agencies and their private-sector partners a path forward to make real improvements in freight infrastructure and operations. This program will leverage the federal investment in freight projects for the economy and for public benefits in safety, mobility, health and the environment.

Executive Summary
Metropolitan Transportation Planning

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 budget requests $343 million for metropolitan transportation planning (PL) funding. Metropolitan Planning Organizations (MPOs) use these funds for multimodal transportation planning and programming in metropolitan areas. Our request is a slight increase over the FY 2016 level of $329.27 million and the FY 2017 level of $335.94 million.

What Is This Program And Why Is It Necessary?
Under the FAST Act, census designated urbanized areas over 50,000 in population are required to designate an MPO to conduct a continuing, cooperative, and comprehensive transportation planning process as a condition to receiving federal funds for transportation projects.

Metropolitan areas are comprised of multiple governmental agencies and jurisdictions, each of which have an interest in and have needs for transportation investment. Through a coordinated, regional approach to planning, an MPO engages the local jurisdictions as well as the State DOT and transit operators in a regional process that identifies the needs and investment priorities for the region. The results are a performance-based long range (20-year) transportation plan and a shorter term (4-year) program of transportation projects for implementation through which the MPOs are required to establish system performance goals and outcomes as part of the metropolitan transportation planning process, and direct their investments toward meeting those system performance outcomes.

What Does This Funding Level Support?
Our $343 million request will ensure that MPOs have adequate resources to conduct the metropolitan planning process.

What Benefits Will Be Provided To The American Public Through This Request?
This request will ensure that MPOs direct investments appropriately toward improving transportation system outcomes in a transparent and accountable manner while engaging the public, elected officials, and other stakeholders in the process. MPOs will then use federal transportation funds more efficiently and effectively, and focus on the national goal areas identified in MAP-21 and continued in the FAST Act.

Detailed Justification
Metropolitan Transportation Planning

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Metropolitan Transportation Planning ($343 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Metropolitan Transportation Planning				
Metropolitan Transportation Planning	329,271	335,938	342,996	7,058
Total	**329,271**	**335,938**	**342,996**	**7,058**

What Is This Program And Why Is It Necessary?

The FAST Act requires census designated urbanized areas over 50,000 in population to designate an MPO to conduct a continuing, cooperative, and comprehensive transportation planning process as a condition of receiving Federal funds for transportation projects. MPOs use metropolitan planning (PL) funds for multimodal transportation planning and programming in metropolitan areas. Metropolitan planning activities include the collection and analysis of data on demographics, trends, and system performance; travel demand and system performance forecasting; identification and prioritization of transportation system improvement needs; and coordination of the planning process and decision making with the public, elected officials, and stakeholder groups.

Metropolitan areas are comprised of multiple governmental agencies and jurisdictions, each of which have an interest in and have needs for transportation investment. Through a coordinated, regional approach to planning, an MPO engages the local jurisdictions as well as the State DOT and transit operators in a regional process that identifies the needs and investment priorities for the region. The results are a long range (20-year) transportation plan and a shorter term (4-year) program of transportation projects for implementation. MAP-21 added a performance based approach to the metropolitan and statewide transportation planning processes, which is continued in the FAST Act; MPOs must establish system performance goals and outcomes as part of the metropolitan transportation planning process, and direct their investments toward meeting those system performance outcomes.

Under the FAST Act, multiple MPOs serving a single region are encouraged to better coordinate transportation planning across their boundaries through development of a common plan and Transportation Improvement Program (TIP) as a means of enhancing metropolitan planning; and they are provided incentives for the consolidation of MPOs. In support of the transition to a performance-driven, outcome-based planning process, the FAST Act would require MPOs to have a performance-based project selection process for their TIPs. The FAST Act has new requirements for resiliency, and stormwater runoff mitigation, which MPOs will have to incorporate into their planning process. Public participation would be enhanced through additional opportunities for the public to participate and comment, such as when an MPO

chooses to conduct scenario planning as part of its plan development and also the addition of public port authorities to the list of interested parties provided an opportunity to comment on the metropolitan plan.

What Does This Funding Level Support?

Our $343 million FY 2018 budget request will ensure that the PL program has adequate resources to conduct the metropolitan planning processes and direct investments appropriately toward improving transportation system outcomes while engaging the public, elected officials, and other stakeholders. There were 384 MPOs prior to the 2010 Census, and 36 new urbanized areas were identified as a result of the 2010 Census. Some of those were within existing MPOs, or joined an existing MPO, and 25 decided to form new stand-alone MPOs. As a result, the total number of MPOs expanded from 384 to the current total of 409.

These funds allow for each MPO to carry out a coordinated transportation planning process and develop long range transportation plans and transportation improvement programs that make effective use of limited transportation funding. These fiscally-constrained, prioritized plans and programs account for transportation system performance needs, future population and employment, future land use, economic development, public involvement, multimodal considerations and connectivity (including bicycle, pedestrian, highway, and transit), freight movement, environmental mitigation, transportation systems operation, safety, and congestion mitigation. The slight increase in program funds will provide MPOs with financial resources to aid in the implementation of FAST Act metropolitan planning provisions such as performance based planning and programming, and adding transit representation to MPOs serving transportation management areas.

What Benefits Will Be Provided To The American Public Through This Request?

This request will ensure that MPOs direct investments appropriately toward improving transportation system outcomes in a transparent and accountable manner while engaging the public, elected officials, and other stakeholders in the process. MPOs will then use federal transportation funds more efficiently and effectively, and focus on the national goal areas of a continuing, cooperative, and comphrehensive planning process identified in MAP-21 and continued in the FAST Act. MPOs' use of performance measures and targets in the decision making process will ensure transparency, and their reporting of progress toward achieving performance targets will lead to improved accountability.

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Executive Summary
Nationally Significant Freight and Highway Projects

What Is The Request And What Funds Are Currently Spent On The Program?
As authorized in the FAST Act, $900 million in FY 2018 for a grant program to support highway and freight projects of national or regional significance. The FY 2016 funding level for this program was $800 million and the FY 2017 funding level is $850 million.

What Is The Program And Why Is It Necessary?
The Nationally Significant Freight and Highway Projects program will advance nationally significant freight and highway projects to improve the safety, efficiency and reliability of the movement of freight and people. This program allows States, metropolitan planning organizations, local governments and other eligible entities to apply for funding to complete projects that improve safety, generate economic benefits, reduce congestion, enhance resiliency, and hold the greatest promise to eliminate freight bottlenecks and improve critical freight movements.

What Does This Funding Level Support?
Our FY 2018 budget request of $900 million for this program will advance critical highway and bridge projects on the National Highway Freight Network (NHFN) and the National Highway System (NHS) that improve the safe, secure, and efficient movement of people and goods throughout the U.S and improve the national economy. The program will also support the types of freight and highway projects that are often multimodal, multi-jurisdictional, complex, or involve partnership with the private sector, which are difficult to develop and implement using other federal and State funding programs.

What Benefits Will Be Provided To The American Public Through This Request?
This program, which advances nationally significant freight and highway projects, offers public-sector agencies and their private-sector partners a path forward to make real improvements in highway and freight infrastructure and operations that will leverage federal investment. Projects supported by this program will provide public benefits including improving national and regional economic vitality, innovation, and safety. Investments in highway and freight infrastructure have a profoundly positive effect on the national economy, create jobs, and support economic growth and increase the global economic competitiveness of the U.S.

Detailed Justification
Nationally Significant Freight and Highway Projects

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Nationally Significant Freight and Highway Projects ($900.0 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Nationally Significant Freight and Highway Projects				
Nationally Significant Freight and Highway Projects	800,000	850,000	900,000	50,000
Total	**800,000**	**850,000**	**900,000**	**50,000**

What Is This Program And Why Is It Necessary?

The Nationally Significant Freight and Highway Projects program is a discretionary grant program that provides financial assistance to States, metropolitan planning organizations, tribal governments, special purpose districts and port authorities with a transportation function and local governments to complete projects that align with the program's statutory goals to:

- Improve safety, efficiency, and reliability of the movement of freight and people;
- Generate national or regional economic benefits and an increase in global economic competitiveness of the U.S.;
- Reduce highway congestion and bottlenecks;
- Improve connectivity between modes of freight transportation;
- Enhance the resiliency of critical highway infrastructure and help protect the environment;
- Improve roadways vital to national energy security; and
- Address the impact of population growth on the movement of people and freight

This discretionary grant program is administered under the Build America Bureau, within the Office of the Secretary of Transportation (OST). The program is necessary to fund highway and freight infrastructure projects that are critical for the efficient movement of goods and people. The program targets investments in highway freight projects carried out on the NHFN and highway and bridge projects carried out on the NHS, including projects on the Interstate System that improve mobility through added capacity. In addition, subject to various conditions, funding is available to cover the costs of freight intermodal or freight rail projects, or freight projects within the boundaries of water facilities (including ports), intermodal facilities, and freight rail facilities, provided such projects generate public benefits and make a significant improvement to freight movements on the NHFN. The program is also necessary to fund railway-highway grade crossing and grade crossing separation projects that improve safety and improve the efficiency and reliability of freight rail service while reducing traffic and passenger rail delays.

The economy depends on efficient, reliable freight transportation to link businesses with suppliers and markets throughout the nation and the world. American farms and mines can market their goods to customers across and beyond the continent, using inexpensive transportation to compete against farming and mining industries in other countries. Domestic manufacturers increasingly use remote sources of raw materials and other inputs to produce goods for local and distant customers, all of which require efficient and reliable transportation to maintain a competitive advantage in a global marketplace. Wholesalers and retailers depend on fast and reliable transportation to obtain inexpensive or specialized goods through extensive supply chains. In the expanding world of e-commerce, households increasingly rely on freight transportation to deliver purchases directly to their door. Service providers, public utilities, construction companies, and government agencies also depend on freight transportation to get needed equipment and supplies from sources around the world.

Highway and freight projects to eliminate bottlenecks, reduce congestion, expand capacity, and improve efficiency can offer public benefits in terms of job creation, improved safety and congestion relief; and contributions to the economic growth of a region or the nation. The relationship between federal investment for goods movement, the impact on the economy, and the call for additional federal investment has been the subject of numerous federally supported studies, reports, State studies, and academic projects.

For the potential benefit of freight investment, the NSFHP uses benefit-cost analyses to support public funding for large freight projects. The analyses help ensure projects are likely to deliver anticipated benefits at reasonable costs. As an example, the Interstate 10 project in Arizona, selected for an FY 2016 award of $54 million, is projected to generate travel time savings for private and commercial drivers along the corridor at approximately $45.1 million, and will yield total project benefits of up to $273 million over an approximate period of 23 years.

Similarly, the Georgia Port Authority was awarded a $44 million grant for the Port of Savannah to eliminate a freight bottleneck by improving the way containerized cargo is transported between the port and cities across the United States. The project is expected to add capacity to handle the port's growth projections into the next decade. The project will reduce the long wait times on at-grade crossings for motorists while trains maneuver in and out of the port. The project will also build rail capacity at the port and expedite service, generating freight mobility and positive economic outcomes through more direct and efficient movement of containerized freight.

The projects awarded under the NSHFP benefit in a variety of ways from the funding. In fact, the Department must determine that any project that exceeds $100 million in project costs cannot be easily and efficiently completed without other Federal funding or financial assistance. For example, some will move to construction more quickly instead of needing to wait years to assemble the additional funding; others will be able to construct a more comprehensive project, or support a multi-state initiative. As an example, a $40 million in investment in one of four components of an Interstate 39/90 project in Wisconsin will allow the State Department of Transportation to accelerate project delivery of the three other components within the larger I-39/90 corridor project. The NSHFP investment will result in sooner realization of the safety, mobility, and economic benefits of the project.

Eligibilities

Eligible applicants are:

- States or a group of States;
- Metropolitan planning organizations that serve an urbanized area, as defined by the Bureau of the Census, with a population of more than 200,000 individuals;
- Units of local government or a group of local governments;
- Political subdivisions of a State or local government; and,
- Special purpose districts or public authorities with a transportation function, including port authorities, Federal land management agencies that apply jointly with a State or group of States, and tribal governments or a consortium of Tribal governments.

Following are project eligibilities for the program:

- A highway freight project carried out on the NHFN established under 23 U.S.C 167;
- A highway or bridge project carried out on the NHS, including
    - a project to add capacity to the Interstate System to improve mobility
    - a project in a national scenic area;
- A freight project that is a freight intermodal or freight rail project; or within the boundaries of a public or private freight rail, water (including ports), or intermodal facility and that is a surface transportation infrastructure project necessary to facilitate direct intermodal inter-change, transfer, or access into or out of the facility; and,
- A railway-highway grade crossing or grade separation project.

Grants funding can be used for the following eligible project costs:

- Project development phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering;
- Design work, and other preconstruction activities; and,
- Construction, reconstruction, rehabilitation, acquisition of real property (including land related to the project and improvements to the land), environmental mitigation, construction contingencies, acquisition of equipment, and operational improvements directly related to improving system performance.

What Does This Funding Level Support?

Congress provided funding in the FAST Act to address critical needs in the transportation system. This program will advance nationally significant freight and highway projects and offers public-sector agencies and their private-sector partners a path forward to make real improvements in infrastructure and operations that will leverage federal investment for public benefits in improving national and regional economic vitality, innovation, and safety. As noted previously, many reports support the view that investments in freight and highway infrastructure can have a positive effect on the national economy, create jobs, support economic growth, and increase the global economic competitiveness of the U.S.

As evidenced by the large number of applications for the first round of the program, there is significant unmet need in the nation for freight investment. In the first call for grants under this program, U.S. DOT received 212 applications totaling nearly $9.8 billion for grants – with states

and localities requesting over 13 times more funding than was available – underscoring the continuing need for infrastructure investment across the country.
The program is anticipated to have a significant effect on the ability of the U.S. to meet the growth in freight and passenger demand in a responsible, effective, and safer way. Nationally and regionally significant highway and freight projects are often multimodal, multi-jurisdictional, complex, or involve partnership with the private sector, making them difficult to efficiently implement under other federal and State funding programs.

What Benefits Will Be Provided To The American Public Through This Request?

Investments in transportation infrastructure improve the economy – As highlighted above, investments in infrastructure have a positive effect on the national economy, and freight investment is in high demand. Analyses confirm that an efficient, reliable transportation system enables the economic competitiveness that is vital to maintaining economic health and supporting employment for the Nation, States, and localities. For example, disruptions to the speed and reliability of freight transportation add directly and indirectly to businesses costs, export costs, the cost of consumer goods and the ability of industry to support jobs.

Operational strategies improve the performance of the transportation system - This program offers opportunities to improve mobility, reduce congestion, improve reliability, or create options for travelers. In addition to mobility benefits, operational strategies often result in benefits such as increased safety and improved mobility outcomes (e.g., reduced travel time or shipping costs).

Freight Projects Create Jobs and Supports Growth and Sustainability – This program offers opportunities to create jobs, support economic growth and competitiveness, and can improve safety and the environment. In FY 2016, the Department awarded nearly $800 million to support 18 infrastructure projects across the country, leveraging over $3.6 billion in infrastructure investment in 15 states and the District of Columbia.

Investing in Nationally and Regionally Significant Projects Yield a High Rate of Return – A discretionary program for nationally and regionally significant highway and freight projects with multi-year authorization offers public-sector agencies and their private-sector partners funding certainty to make real improvements in infrastructure and operations.

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Executive Summary
Federal Lands & Tribal Transportation Programs

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 budget requests $1.10 billion for the Federal Lands and Tribal Transportation Programs (FLTTP) to provide funding for transportation construction and engineering projects on Federal and Tribal lands. These projects will provide multimodal access to basic community services for 567 Federally-recognized sovereign Tribal governments, improve multimodal access to public lands/national treasures, and expand economic development and transportation accessibility in and around Federal and Tribal lands. Our FY 2018 request is a modest increase over the FY 2016 level of $1.05 billion and the FY 2017 level of $1.08 billion.

What Is This Program And Why Is It Necessary?
The FLTTP is comprised of three primary programs:

- **Federal Lands Transportation Program** – $355 million for projects that improve multimodal transportation on high-priority roads, bridges, trails, and transit systems within the Federal estate (national forests, national parks, national wildlife refuges, national recreation areas, and other Federal public lands) on infrastructure owned by the Federal government.
- **Federal Lands Access Program** – $260 million for projects that improve multimodal transportation on roads, bridges, trails, and transit systems that access the Federal estate on infrastructure owned by States, counties, and local governments.
- **Tribal Transportation Program** – $485 million for projects that improve multimodal transportation on roads, bridges, trails, and transit systems that access to and are located within Tribal lands.

These programs support safe, seamless, and multimodal transportation access to and within Federal and Tribal lands. In turn these programs contribute to the travel and tourism, recreation, and resource extraction portions of the national economy. Additionally they provide opportunities for jobs and quality of life for the nearby communities. In the absence of these programs, it is highly likely, based on historical experiences, that the roads and bridges providing vital access to our Federal treasures and community services provided by Tribes (such as medical and education) would fall into severe disrepair, jeopardizing the public's and Tribal members' ability to access these areas and services.

What Does This Funding Level Support?
The requested $1.10 billion will provide a level of investment required to achieve results for these programs of national interest. The investment supports over 500,000 miles of paved and unpaved roads and 6,600 bridges used by over 900 million visitors annually, in addition to approximately 160,000 miles of roads and bridges used in large part by residents of 567 federally recognized, sovereign Tribes.

What Benefits Will Be Provided To The American Public Through This Request?
The FLTTP has demonstrated that Federal investment improved the condition of roads and bridges on Federal and Tribal lands. Through these improvements, safety, access to and within, and quality of life in and around Federal and Tribal lands are significantly improved.

Detailed Justification
Federal Lands Transportation Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Federal Lands Transportation Program ($355 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Lands and Tribal Transportation Programs				
Federal Lands Transportation Program	335,000	345,000	355,000	10,000
Federal Lands Access Program	250,000	255,000	260,000	5,000
Tribal Transportation Program	465,000	475,000	485,000	10,000
Total	**1,050,000**	**1,075,000**	**1,100,000**	**25,000**

Program Activity	FY 2016 Enacted ($000)	FY 2017 Annualized CR ($000)	FY 2018 Request ($000)	Change from FY 2017 to FY 2018 ($000)
Federal Lands Transportation Program:				
Transportation facilities (roads, bridges, trails, and transit systems) owned by the National Park Service (NPS)	$268,000	$276,000	$284,000	$8,000
Transportation facilities owned by the U.S. Fish & Wildlife Service (USFWS)	$30,000	$30,000	$30,000	$0
Transportation facilities owned by the U.S. Forest Service (USFS)	$15,000	$16,000	$17,000	$1,000
Transportation facilities owned by the Bureau of Land Management (BLM), Bureau of Reclamation (BoR), U.S. Army Corps of Engineers (USACE), Presidio Trust Corporation, and independent federal agencies with natural resource and land management responsibilities	$22,000	$23,000	$24,000	$1,000
Total	**$335,000**	**$345,000**	**$355,000**	**$10,000**

What Is This Program And Why Is It Necessary?

The Federal Lands Transportation Program (FLTP) continues the purpose of the Federal Lands Highway Program (FLHP), which was in effect from 1983 to 2012, to promote a coordinated approach to highway construction on roads owned by Federal Land Management Agencies (FLMAs). The FLTP focuses on a comprehensive system of nationally-significant Federal transportation infrastructure (roads, bridges, trails, and transit systems) using a performance management program approach. The accomplishments in FY2018 will include the design and construction of a wide variety of of Federal transportation infrastructure all across the country.

The purpose of the FLTP is to provide access within our national parks, forests, wildlife refuges, recreation areas, and other Federal public lands. The FLTP focuses on the subset of the Federal transportation infrastructure that is nationally significant: those roads, bridges, trails, or transit systems which provide access to high-use recreation areas or provide critical access for economic generation to support the local economy. In this manner, critical funding resources are targeted to those transportation facilities that provide access to the most popular recreational destination points within the Federal estate and thereby generate the greatest return on investment to land owners, communities adjacent to Federal lands, and the American people who are looking for seamless transportation to these popular locations. The FLTP focuses on those transportation facilities that are in the national interest to maintain rather than broadly trying to include every road owned by the Federal Government or every road that provides access to Federal lands. The FLMAs are required to maintain a national transportation facility inventory and report annually on the state of good repair of the transportation infrastructure in the national Federal lands transportation facility inventory.

The FLTP funds transportation planning, research and innovation deployment, preventive maintenance, engineering, administrative expenses, rehabilitation, and construction of roads,bridges, trails, and transit systems that provide access to, within, or adjacent to Federal lands. Funding allocations within the $355 million request cited above will allow all participating agencies to proactively meet long-range and short-range transportation planning requirements, more efficiently enhance their data collection, and promote the leveraging of FLTP funds with other non-traditional sources of revenue thereby directing more funds toward transportation construction projects. The identification of baseline allocations considers each agency's defined transportation networks, deferred maintenance backlog of transportation needs, transportation performance plans, and prior program allocations.

Each agency submits a single investment plan which describes how they intend to use their funds. Each proposed investment plan will be required to demonstrate how it supports the Secretary of Transportation's goals, most highly visited Federal recreational areas and economic generators, and the goals of the participating agency. This approach incentivizes the administration of a performance-based program. In this manner, agencies can continue to engage in long-term transportation planning, multi-year project programming, and leverage management systems and other asset management tools to support better decision making.

Recognizing the need for all public Federal and tribal transportation facilities to be treated under uniform policies, 23 U.S.C. 201(c) requires that the Secretary of Transportation, in consultation with the Secretary of each appropriate Federal land management agency (FLMA), implement

transportation planning procedures for Federal lands and tribal transportation facilities that are consistent with the planning processes required under 23 U.S.C. 134 (Metropolitan Transportation Planning) and 135 (Statewide and Nonmetropolitan Transportation Planning). Therefore, the transportation planning program provides opportunities for inter-governmental cooperation in performance-based transportation planning, programming, and decision-making. To carry out eligible transportation planning and programming activities for Federal Lands Transportation Facilities, Federal Lands Access Transportation Facilities, and other federally owned roads open to public travel (as defined in 23 U.S.C. 125(e)), 23 U.S.C. 201(c)(8) requires the Secretary to combine and use each fiscal year not greater than 5 percent of the funds authorized for the Federal Lands Transportation and Federal Lands Access Programs (FLTP and FLAP, respectively) under sections 203 and 204 of title 23, United States Code. This funding is managed as the Federal Lands Planning Program (FLPP)

The FLPP supports long-range transportation planning, bridge inspections, management systems implementation, research and innovation deployment, and collection of road and bridge inventory and condition data. This FLPP will support bridge inspection activities for public-use bridges included in FLTP partner's defined transportation networks, public use bridges outside those network(s), and bridge inspection activities for other Federal agencies not included in the FLTP. The FLPP will focus on comprehensive multi-agency planning efforts and positions the program more effectively to support performance management.

The Federal Government owns approximately 30 percent of the land in the United States (see Exhibit 1 that follows). This land is primarily rural in nature, though there are many Federal lands in urban settings, such as the Golden Gate National Recreation Area in San Francisco, CA and the National Mall and Memorial Parks in Washington, DC. This program supports safe, seamless, and multimodal access to and through our national parks, forests, recreation areas, wildlife refuges, and other Federal public lands. The FLTP is focused on a comprehensive and coordinated approach to maintaining, rehabilitating, and improving the nationally-significant portions of the public transportation infrastructure owned by FLMAs, which are used on a daily basis by the American public.

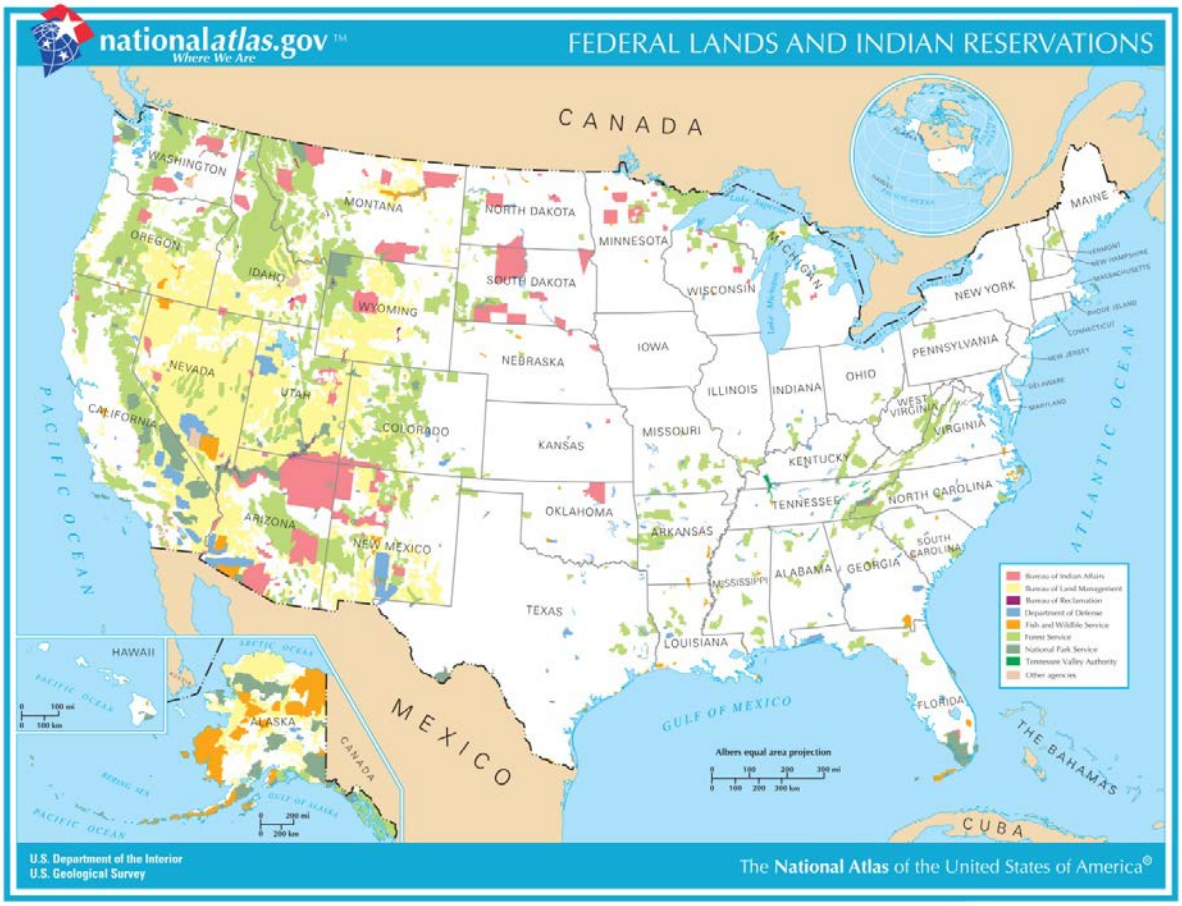

Exhibit 1

Recent national trends indicate that national forests and parks that were once 60-90 minutes away from urban areas are now 15-20 minutes away as suburbs continue to expand further from the urban cores. Approximately 90 percent of the US population is located within 50 miles of a US Army Corps of Engineers recreation site. The need and demand for recreation for the growing US population is increasing. Outdoor recreation is playing a bigger role in our nation's health and quality of life. Recreational spending is a significant portion of the hundreds of billions in travel and tourism dollars that are contributed to the US economy every year. It is one of the fastest growing sectors of our economy—and more than 20 percent of Americans' recreational activities take place on Federal lands.

The FLTP provides attractive opportunities for big and small businesses alike. It provides access to those Federal lands for a wide variety of recreational activities: hunting, fishing, hiking, camping, RVing, skiing, snowshoeing, swimming, snorkeling, diving, running, biking, bird watching, sightseeing, horseback riding, driving for pleasure, snowmobiling, boating, waterskiing, and countless other outdoor activities. These activities create thousands of jobs for local communities surrounding Federal lands and as well as supporting jobs for major equipment and supply manufacturers. Additionally, Federal lands contribute significantly to our economy through energy generation, livestock grazing, and resource extraction, including both renewable (timber) and non-renewable (oil, gas, and other mineral) resources. The FLTP is the primary

funding mechanism to keep all of the roads, bridges, trails, and transit systems that provide this access in a state of good repair.

What Does This Funding Level Support?

The requested $355 million is $20 million above the FY 2016 level and $10 million above the FY 2017 level. This amount supports a comprehensive, coordinated, and performance-oriented approach to Federal transportation infrastructure management. We have determined that the national priority should focus the limited Federal funding on the roads, bridges, trails, and transit sysem transportation infrastructure that provide critical access to highly visited Federal recreation areas and economic generators.

The anticipated FY 2018 accomplishments will include the design and construction of Federal transportation infrastructure consistent with the FLMAs and DOT strategic goals and plans.

What Benefits Will Be Provided To The American Public Through This Request?

The FLTP outcomes include completed construction and engineering projects that will improve multimodal access, support increasing visitation to recreational areas on public lands, expand economic development and create new jobs in and around Federal lands, and contribute to the national economy. These collectively result in more options to improve the quality of life for all Americans, while increasing safety, preserving the environment, and reducing congestion at our national treasures.

Detailed Justification
Federal Lands Access Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Federal Lands Access Program ($260 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Lands and Tribal Transportation Programs				
Federal Lands Transportation Program	335,000	345,000	355,000	10,000
Federal Lands Access Program	250,000	255,000	260,000	5,000
Tribal Transportation Program	465,000	475,000	485,000	10,000
Total	**1,050,000**	**1,075,000**	**1,100,000**	**25,000**

What Is This Program And Why Is It Necessary?

The Federal Lands Access Program (Access Program) focuses on a comprehensive system of nationally significant State, county, Tribal, and local transportation infrastructure (roads, bridges, trails, and transit systems) which provide access to the entire Federal estate.

The anticipated FY 2018 accomplishments include the design and construction of transportation infrastructure consistent with the FLMAs DOT strategic goals and plans.

The purpose of the Access Program is to support transportation infrastructure owned and maintained by State, county, Tribe, or local government that provides access to Federal lands. The Access Program focuses on the subset of the roads, bridges, trails, and transit systems which provide access to high-use Federal recreation areas that increase interconnectivity between communities adjacent to Federal lands, or which provide critical access for resource extraction, energy generation, renewable resource usage, animal grazing to support the local economy, or other uses.

The structure of the $260 million Access Program is a formula distribution by State. Since all States have Federal lands of some type, each State benefits from some portion of this funding. The formula criteria includes visitation to Federal lands, Federal public road miles, number of Federal bridges, and the amount of Federal public lands within each state. Further, 80 percent of the funds are directed towards the 12 states with at least 1.5 percent of total Federal lands: Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Programming decisions are made locally by a Program Decisions Committee comprised of representatives of the State DOTs, FHWA, and from county or local governments. These decisions are made in coordination with FLMAs. Funds are used to target transportation infrastructure (roads, bridges, trails, and transit systems) that are owned by States, counties, Tribes, or local governments which provide critical access to Federal lands with high-use Federal recreation areas or high-use Federal economic generators.

The Access Program reserves a percentage of the funding for long range transportation planning, bridge inspections, management systems, and collection of road and bridge inventory and condition data by FLMAs. This set-aside also supplements costs associated with bridge inspection activities on federally-owned bridges which are not on the national Federal transportation facility inventory. The set-aside focuses on comprehensive multi-agency planning efforts and positions the program more effectively to support performance management.

The Access Program funds transportation planning, research and innovation deployment, preventive maintenance, engineering, rehabilitation, and construction of roads,bridges, trails, and transit systems owned by States, counties, Tribes, or local governments that provide access to, within, or are adjacent to Federal lands. The projects link highly used Federal transportation infrastructure inside the boundaries of Federal lands with the transportation system outside the boundaries. In this manner, critical funding resources will be targeted to those roads and bridges that provide access to the most highly used recreational destination points and economic generators within the Federal estate and thereby produce the greatest return on investment to land owners, communities adjacent to Federal lands, and the American people who are looking for seamless transportation to these popular recreational locations. Put more plainly, the Access Program focuses on roads, bridges, trails, and transit systems that are in the national interest to maintain rather than broadly trying to include every road that provides access to Federal lands.

The Federal Government owns approximately 30 percent of the land in the United States (see Exhibit 1 that follows). This land is primarily rural in nature, though there are many Federal lands in urban settings, such as the Golden Gate National Recreation Area in San Francisco, CA and the National Mall and Memorial Parks in Washington, DC. This program, in conjunction with the Federal Lands Transportation Program, supports safe, seamless, and multimodal access to and within our national parks, national forests, national wildlife refuges, and many other Federal lands.

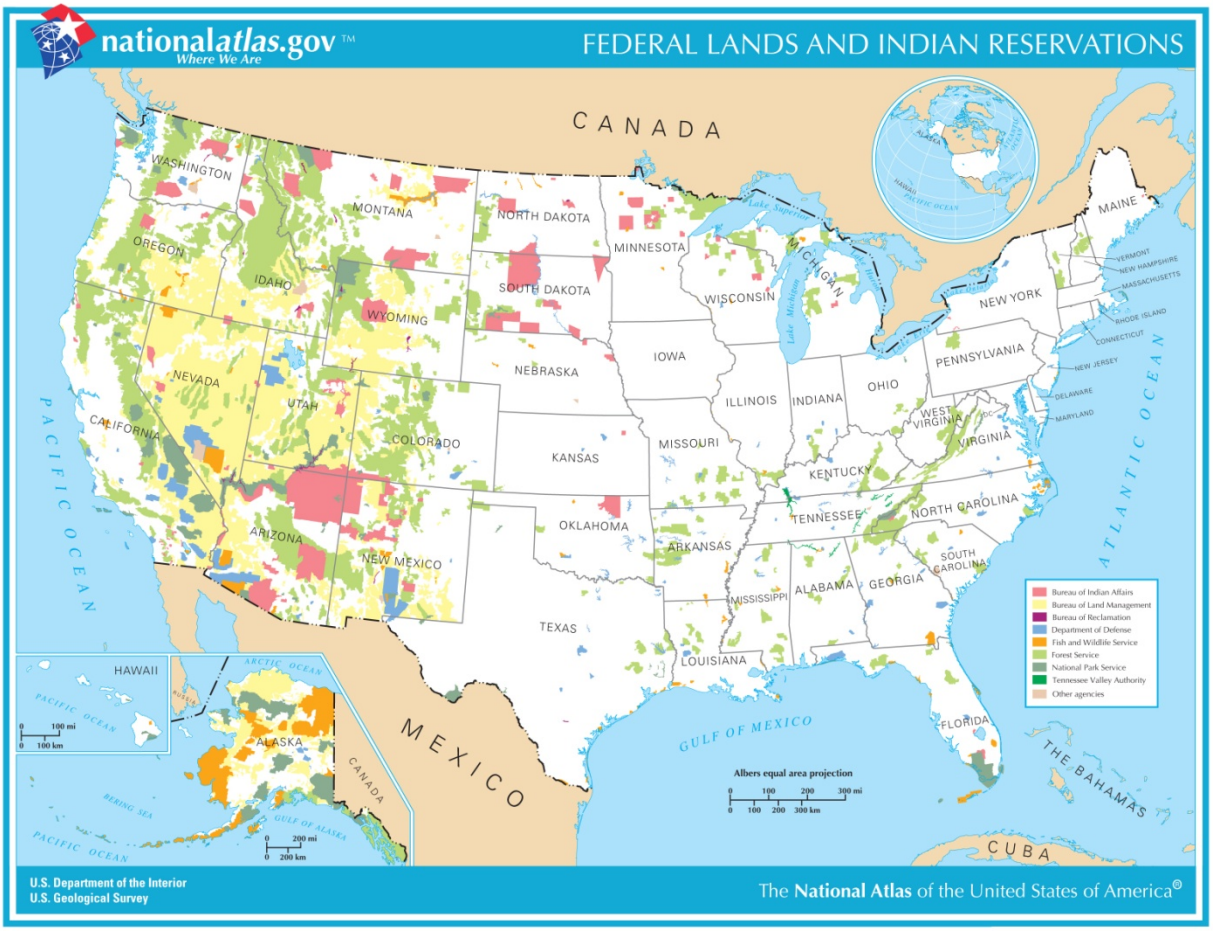

Exhibit 1

The Access Program is focused on a comprehensive and coordinated approach to maintaining, rehabilitating, and improving the nationally-significant portions of the public transportation infrastructure owned by States, counties, Tribes, or local governments, which provide key access to the Federal estate and are used on a daily basis by the American public.

What Does This Funding Level Support?

The requested $260 million is $10 million above the FY 2016 level and $5 million above the FY 2017 level. This amount supports a comprehensive, coordinated, and performance-oriented approach to transportation infrastructure management on roads and bridges providing access to the Federal estate.

The anticipated FY 2018 accomplishments will include the design and construction of transportation infrastructure consistent with the FLMAs and DOT strategic plans and goals.

The national priority is to focus the limited Federal funding on roads,bridges, trails, and transit systems that provide critical access to highly-visited Federal recreation areas, and Federal economic generators. The Access Program focuses on publicly accessible, high-priority roads, bridges, trails, and transit systems owned by the States, counties, local governments, and Tribal governments which provide access to the entire Federal estate.

Tribal governments can also be supported by the FLAP. Tribes may apply for FLAP funding if the road or facility proposed for funding is owned or operated by the Tribe and provides access to federally-owned land. For example, a Tribally-owned road that provides access to a national park or national forest, or other federal land, is eligible for the FLAP. Tribal lands are not defined as federally owned land and are thus not eligible to be identified as FLMA land parcels potentially benefitting from an Access Program project that provides access to Tribal lands.

What Benefits Will Be Provided To The American Public Through This Request?

The Access Program outcomes include completed construction and engineering projects that will improve multimodal access, support increasing visitation to recreational areas on public lands, expand economic development and create new jobs in and around Federal lands, and contribute to the national economy. These collectively result in more options to improve the quality of life for all Americans, while preserving the environment and reducing congestion at our national treasures.

Many of these road and bridge improvements included multimodal options on the same road or bridge thereby providing visitors with transportation options (e.g., motoring, biking, walking). We anticipate similar accomplishments through a broader set of State and county facilities that access all public lands under this program. In summary, the program's transportation investments allow visitors from the United States and numerous countries to experience America's treasures in a safe and seamless manner.

Detailed Justification
Tribal Transportation Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Tribal Transportation Program ($485 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Lands and Tribal Transportation Programs				
Federal Lands Transportation Program	335,000	345,000	355,000	10,000
Federal Lands Access Program	250,000	255,000	260,000	5,000
Tribal Transportation Program	465,000	475,000	485,000	10,000
Total	**1,050,000**	**1,075,000**	**1,100,000**	**25,000**

What Is This Program And Why Is It Necessary?

The Tribal Transportation Program (TTP) promotes a coordinated approach to highway construction in Indian country on roads owned by the Bureau of Indian Affairs (BIA), sovereign Tribal governments, and other roads owned by States, counties, or local governments which provide access to or are located within Indian communities.

The anticipated FY 2018 accomplishments will include the design and construction of Tribal transportation infrastructure consistent with strategic long-range transportation plans and goals of the Tribes and DOT.

The structure and allocation of the $485 million to the 567 federally recognized Tribes is based on a statutory formula that was established in MAP-21 and carried forward in the FAST Act (23 U.S.C. 202(b)). This statutory funding formula replaced a previously used funding formula that was developed through Negotiated Rulemaking during TEA-21 and published in 2004. The current statutory funding formula has various factors and takedowns but ultimately determines a "tribal share percentage" for each federally recognized Tribe. This percentage is then applied to the year's available program funding in order to calculate each Tribe's share of TTP funding for that year. Since the transition to the new formula (as established in MAP-21) has been completed, the FY 2018 tribal share "percentages" will closely reflect those percentages used to distribute funding in FY 2016 and 2017.

The program would fund transportation planning, research, maintenance, engineering, rehabilitation, and construction of roads,bridges, trails, and transit sytems that provide access to, are within, or are adjacent to Tribal lands. The BIA and Tribes are required to maintain a national road and bridge inventory, and report annually on the state of good repair of the TTP system. In addition, each user of TTP funds is statutorily required to report on their obligations and expentures of TTP funds each year as well as on the number of jobs created and retained by the funding.

The TTP advances transportation accessibility in Tribal communities. This program provides better access to housing, emergency services, schools, stores, jobs, and medical services. Access to these basic services improves the quality of life on Tribal lands.

The TTP has the following statutory set asides:

- A two percent set-aside for Transportation Planning. These funds are provided to each Tribe for use in carrying out transportation planning activities as identified in 25 CFR 170;
- A three percent set-aside for national bridge rehabilitation and replacement. The set-aside will be administered using the existing regulatory-defined grant program which prioritizes funds on the bridges with the lowest sufficiency rating. Applications are submitted by Tribes each year;
- A two percent set-aside for Transportation Safety Activities. These funds are provided to the Tribes on a competitive basis for safety projects eligible under the Highway Safety Improvement Program. In some States, the fatality and crash rates on Tribal lands are three to four times higher when compared to the balance of the same State(s); and
- A five percent set-aside for administration of the program. Funding from this set-aside helps to provide funding for the seven Tribal Technical Assistance Program Centers which provide technical assistance and training to Tribes, oversight and maintenance of the TTP Inventory, funding for the TTP Coordinating Committee, and funding for the BIA, BIA-DOT, and FHWA staff responsible for carrying out the Stewardship and Oversight and the inherent Federal functions/responsibilities of the program. These inherent Federal functions include fund distribution, technical assistance, environmental documentation review and approval, project construction inspection, and the travel by the Federal employees to carry out these activities.

What Does This Funding Level Support?

The requested $485 million is $20 million above the FY 2016 level and $10 million above the FY 2017 level. The request supports a more comprehensive, coordinated, and goal-oriented approach to Tribal transportation infrastructure management.

What Benefits Will Be Provided To The American Public Through This Request?

The TTP provides funding to improve the access to basic community services for all of the 567 federally-recognized sovereign Tribal governments. The transportation infrastructure supports better and safer access to housing, emergency services, schools, stores, places of employment, and medical services. On some rural reservations, a “complete street” means an all-weather road instead of a native-surface road. The TTP will promote access to Tribal lands for commerce and economic growth within Tribal communities. More than eight billion vehicle miles are traveled annually on the TTP system, despite more than 60 percent of the system being unpaved.

Executive Summary
Research, Technology & Education (RT&E) Program

What Is The Request And What Funds Are Currently Spent On the Program?
The FY 2018 funding request for the RT&E Program is $417.5 million. This is a slight increase over FY 2016 level of $414.5 million and the same as the FY 2017 level.

What Is The Program And Why Is It Necessary?
The RT&E Program is comprised of the following subprograms:

- Highway Research & Development Program (HRD): $125 million for research activities associated with safety, accelerating project delivery, operations, policy, infrastructure preservation, and infrastructure design.
- Technology & Innovation Deployment Program (TIDP): $67.5 million to turn research products into proven technologies, and to promote rapid adoption of proven, market-ready technologies and innovations to States, local jurisdictions, and industry. TIDP advances, and will continue to advance, the Every Day Counts (EDC) initiative that identifies market-ready technologies with high pay-offs and accelerates their deployment and acceptance throughout the Nation.
- Training & Education Program (T&E): $24 million to train the current and future transportation workforce, transferring knowledge quickly for effective deployment.
- Intelligent Transportation Systems Program (ITS): $100 million for research and deployment of applications and tools that facilitate a connected, integrated, and automated transportation system that is information-intensive to better serve the interests of users and be responsive to the needs of travelers and system operators.
- State Planning and Research program (SP&R – Research portion – Non-add): The States must set aside a portion of their formula program funds to conduct research and deploy technologies and innovations of local, regional, and national interest.

The Office of the Assistant Secretary for Research and Technology administers these RT&E programs: University Transportation Centers ($75 million), and Bureau of Transportation Statistics ($26 million). *Justifications for these programs are in the budget for the Office of the Secretary of Transportation, Office of the Assistant Secretary for Research and Technology.*

What Does This Funding Level Support?
Research and development, technology deployment, and training functions are the highway program's primary means for developing and advancing technology solutions to support and improve the transportation system. The requested level of funding will allow FHWA to develop and deliver technology and procedural advancements that improve infrastructure longevity and integrity, improve system resilience, increase throughput, improve safety, reduce costs, and improve connectivity within communities, both in the short-term and long-term.

What Benefits Will Be Provided To The American Public Through This Request?
FHWA's commitment to researching and implementing ground-breaking innovations and technologies is changing the way roads, bridges, and other facilities are planned, designed, built, and maintained across the country. This commitment delivers a safer and more reliable transportation system that is cost-effective, environmentally sustainable, and reconnects neighborhoods and communities, thus improving overall quality of life.

Detailed Justification
Research, Technology & Education (RT&E) Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Research, Technology, and Education Program ($417.5 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Research, Technology & Education Program				
Highway Research and Development Program	125,000 1/	125,000 1/	125,000 1/	-----
Technology and Innovation Deployment Program	67,000 1/	67,500 1/	67,500 1/	-----
Training and Education	24,000	24,000	24,000	-----
Intelligent Transportation Systems Program	100,000 1/	100,000 1/	100,000 1/	-----
University Transportation Centers 2/	72,500	75,000	75,000	-----
Bureau of Transportation Statistics 2/	26,000	26,000	26,000	-----
State Planning & Research (SP&R research portion) [Non-Add]	[195,224]	[199,894]	[204,214]	[4,320]
Total	**414,500**	**417,500**	**417,500**	-----

1/ Per the FAST Act, the Advanced Transportation & Congestion Management Technologies Deployment Program (ATCMTD) will be included in the Technology and Innovation Deployment Program and will be funded by set-asides from the Highway Research and Development Program, Technology and Innovation Deployment Program, and Intelligent Transportation Systems Program.
The funding levels shown for these 3 programs are pre-ATCMTD set-aside.
2/ Administered by the Office of the Assistant Secretary for Research and Technology.

What Is This Program And Why Is It Necessary?

This request enables the Department to conduct, sponsor, sustain, and guide highway research and technology activities that addresses current and emerging highway challenges and provides information for policy decisions. This request will provide a comprehensive and coordinated research, technology, and education program that will advance FAST Act priorities of accelerating innovation delivery and technology implementation.

The RT&E Program is comprised of the following sub-programs:

- Highway Research & Development Program (HRD): $125 million for research activities associated with safety, infrastructure preservation, environmental mitigation, operations, policy, and infrastructure design that enhances the connection and reconnection of communities.
- Technology & Innovation Deployment Program (TIDP): $67.5 million to enable FHWA and its partners to more aggressively fill the critical need to turn research products into proven technologies or demonstrate practices. TIDP advances, and will continue to advance, the Every Day Counts (EDC) initiative that identifies market-ready technologies with high pay-offs and accelerates deployment and acceptance throughout the Nation.
- Training & Education Program (T&E): $24 million to train the current and future transportation workforce, transferring knowledge quickly for effective deployment.
- Intelligent Transportation Systems Program (ITS): $100 million for research and deployment of applications and tools that facilitate a connected, integrated, and automated

transportation system that is information-intensive to better serve the interests of users and be responsive to the needs of travelers and system operators.

- State Planning & Research Program (SP&R – Research portion – Non-add): The States must set aside a portion of their formula program funds to conduct research and deploy technologies and innovations of local, regional, and national interest. .
- Office of the Assistant Secretary for Research and Technology-administered RT&E programs: University Transportation Centers and Bureau of Transportation Statistics. ***Detailed justifications for these programs can be found in budget submission for the Office of the Secretary of Transportation (OST) - Office of the Assistant Secretary for Research and Technology.***

What Does This Funding Level Support?

Without sufficient funding for the RT&E program, the nation's highway program would lose its primary means for creating and advancing innovative solutions to support national policies, improve highways, and accelerate construction.

The programs under FHWA's RT&E portfolio cover all phases in the innovation life cycle: HRD covers exploratory advanced research, applied research and development, and initial testing. TIDP supports the implementation, delivery and deployment phase, conducting refined testing and evaluations, market research, and communicating the value of accelerating innovations in the highway community. The ITS program develops and deploys applications for an informed, connected, and automated transportation system. The T&E program provides assistance to transportation agencies and users of these market-ready technologies, training and educating the workforce on how to efficiently implement and deploy the innovations. Additionally, the States use the SP&R to conduct research of local, regional, and national interest.

The main components of the RT&E program are as follows:

Highway Research and Development Program (HRD)
HRD highlights FHWA's leadership in developing a comprehensive, nationally-coordinated highway research and development program, engaging and cooperating with other highway research programs such as University Transportation Centers, the pooled fund National Cooperative Highway Research Program, and State-based research and technology initiatives. Research areas include:

- **Infrastructure -** Priority infrastructure areas are:
    - *Designing Infrastructure for Safety, Durability & Resiliency* - Safe, durable, sustainable and resilient highway infrastructure is essential to maintain the commercial and personal mobility that supports our economy and way of life. Advances in materials, tools, technologies, test methods, specifications and guidance are needed to support cost-effective designs forbridges, tunnels, pavements and other structures.
    - *Infrastructure Asset Management* -Advancements in infrastructure asset management tools, technologies and guidance are needed to maximize the benefits achieved through implementation of the MAP-21-mandated performance management regulations. The challenges to be addressed include understanding/prediction of long term infrastructure performance, including (but not limited to) the impacts of both

traffic loads and the environment through the Long Term Pavement Performance and Long Term Bridge Performance programs.
    - *Infrastructure Construction, Preservation & Rehabilitation* - As traffic volumes and loads continue to grow, the need for rapid construction, preservation and rehabilitation of long-lasting bridges, pavements, tunnels and other structures that are economical both initially, and over the full life-cycle has never been greater.
- **Safety -** Activities emphasize data-driven analysis of roadway-related safety considerations and specific improvement in three crash areas: roadway departure, intersection design, and pedestrians and cyclists. Extensive data and analysis of available, and specialized, crash data supports developing program activity. The program conducts rigorous evaluations to determine what safety improvements can be expected with the introduction of countermeasure designs or operations. All design or operational changes are assessed from a human factor perspective to eliminate or minimize unexpected consequences of change. FHWA works in cooperation with NHTSA and FMCSA to develop tools and technologies to reduce crashes and improve transportation safety.
- **Planning and Environment –** Initiatives include:
    - *Developing strategies to accelerate project delivery and minimize negative impacts* to maximize benefits from transportation investment on the natural and human environment;
    - *Improving community connectivity*: Performance management approaches for planning, designing, and building transportation projects that promote connectivity, revitalize communitites, and improve public health and safety.
    - *Carrying out short and long-term sustainability initiatives* to improve project delivery and enhance communities that are impacted by transportation projects as well as to reduce emissions to make transportation systems more energy efficient and more resilient
- **Operations -** FHWA conducts research on the application of cutting-edge technologies to move people and goods better, quicker, more reliably, and safer. The primary focus is on mitigating the impacts of recurring congestion and dealing more effectively with non-recurring events that cause congestion, such as traffic incidents, work zones, adverse weather conditions, and planned special events. Operations research works in concert with connected vehicle and other Intelligent Transportation System initiatives, and pursues a broad range of activities designed to enhance freight productivity and economic competitiveness of the United States.
- **Policy –** Initiatives include:
    - *Analyzing emerging issues in the transportation community*, such as alternative highway revenues, understanding trends and patterns of how the system is used, and economic impacts of highway investment.
    - *Developing the Infrastructure Investment Needs Report* through data analysis to assess the current and future conditions of our Nation's highways and bridges.
    - *Forming strategic alliances with international partners* to gain better knowledge of technology and best practices put in place in other countries that can improve the U.S. surface transportation system, and leverage resources to enable the U.S. to benefit from investments made by foreign counterparts.

- **Next Generation Research & Technology –** Activities include:
    - *Advancing the Exploratory Advanced Research (EAR) Program*, conducting longer-term, higher-risk research with the potential for dramatic breakthroughs. The EAR Program seeks opportunities from discoveries in basic science and technology and matches them to critical persistent and emerging highway transportation needs. EAR Program funding can lead to new research techniques, instruments, and processes accerating the developmet of new technologies for increased safety, mobility, and the state of good repair.
    - *Operating the FHWA's Turner-Fairbank Highway Research Center (TFHRC)*, a Federally-owned and operated research facility in McLean, Virginia that provides State and local governments, FHWA, and the world highway community with targeted applied research and development related to new highway technologies.
- **Surface Transportation System Funding Alternatives Demonstration Program**: The FAST Act requires FHWA to provide grants to States to demonstrate alternative funding sources for the Highway Trust Fund.

Technology & Innovation Deployment Program (TIDP)

After innovations and technologies have gone through an initial testing and evaluation process and are ready to be put through a more refined, conclusive testing, or to be deployed, these technologies are advanced through the TIDP. This is where final evaluations, pilots, demonstrations, marketing, communications, and promotional activities are conducted to accelerate its adoption by Federal Lands Highways and State DOTs and other government entities or beneficiaries.

Examples of TIDP sub-programs include:

- **Every Day Counts Initiative (EDC):** The FAST Act recognizes the success of EDC, making it a required program. EDC identifies market-ready technologies with high pay-offs and accelerates their deployment and acceptance throughout the Nation.
- **Accelerated Innovation Deployment Demonstration Program:** FHWA provides incentive funding for eligible entities to accelerate the implementation and adoption of innovation in highway transportation. Funds are available to cover the cost of implementation of an innovation on a project.
- **State Transportation Innovation Council (STIC) Incentive Program**: FHWA offers technical assistance and resources to support the standardizing of innovative practices in a State transportation agency or other public sector STIC stakeholders.
- **Accelerated deployment of pavement technologies**: The FAST Act extends the designation of funding to promote, deploy, demonstrate, and document the application of innovative pavement technologies, practices, performance, and benefits.
- **Advanced Transportation and Congestion Management program**: Funded out of the HRD, TIDP, and ITS programs, the FAST Act requires FHWA to award grants to States and other entities to deploy technologies with the potential to relieve congestion and improve the quality of life.

Training and Education Program (T&E)

T&E is responsible for training the current and future transportation workforce, transferring knowledge quickly and effectively to and among transportation professionals, and providing

education solutions throughout the full innovation lifecycle. T&E provides a wide variety of services and products, including:

- *The National Highway Institute* provides training courses to present the latest technologies and best practices in highway construction.
- *The Local and Tribal Technical Assistance Programs (LTAP/TTAP)* support technology transfer centers in all 50 States, Puerto Rico, and regional centers serving Native American Tribal governments.
- *Training and Workforce Development Programs*:
  - The Dwight D. Eisenhower Transportation Fellowship Program provides opportunities for students and faculty to research transportation topics.
  - The Garrett A. Morgan Technology and Transportation Education Programs enhance science, technology, engineering, and mathematics at elementary and secondary school level.
  - The Transportation Education Development Program develops new curricula and education programs to train individuals at all levels of the transportation workforce.
  - The Surface Transportation Centers for Excellence will promote and support strategic programs and activities in the areas of environment, surface transportation safety, rural safety, and project finance.

Intelligent Transportation Systems Program (ITS)

For FY 2018, the FAST Act authorized Intelligent Transportation Systems Program (ITS) will execute research and deployment efforts in six focus areas -- Connected Vehicles, Automated Vehicles, Enterprise Data, Interoperability, Emerging Technologies, and Accelerating Deployment. These six program categories provide the US DOT the best tactical and strategic opportunities to exhibit federal leadership to transform transportation using ITS technologies. The FY 2018 budget proposes the following strategies for these program categories:

- *Connected Vehicles (CV)* – This program is the keystone of ITS JPO's research and engagement process building on over a decade of experience aligned with US DOT's mission of advancing safety innovations in transportation. Capabilities leveraging these safety innovations also have demonstrated capability to provide new levels of personal mobility and dramatically improve the efficiency of goods movement. The current flagship effort of the program is the CV Pilot Deployment Program, funding large-scale CV system implementation efforts led by the New York City Department of Transportation (NYCDOT); the Tampa Hillsborough Expressway Authority (THEA); and the Wyoming Department of Transportation (WYDOT). Similar, interoperable technologies are being used differently at these three sites to improve safety in environments as diverse as dense urban grid networks and isolated high-plains interstates. The three sites piloted a deployment planning process that is transferrable to other regions in the US. All sites are currently completing a design/test/build phase before moving on to an operational phase in Spring 2018.

- *Automated Vehicles(AV)* – The development of AV technology is occurring at a rapid pace, with industry investing billions of dollars a year. Several states have enacted legislation regarding AV and testing is currently occurring on public roads. Partially automated vehicles are available in the market today and heavy vehicle automation technologies are approaching commercialization. Recognizing the importance of these

recent advancements, the US DOT is playing a significant role in addressing the key technological and institutional barriers that have emerged. In 2013-14, the Intelligent Transportation System Joint Program Office (ITS JPO) initiated the AV research program and developed a multi-modal program plan. The goal of ITS JPO automation research is to promote policy and technical research to reduce risks and produce positive outcomes. The program seeks to "enable safe, efficient, and equitable integration of automation into the transportation system." ITS JPO program research is conducted by ITS JPO staff and stakeholders in collaboration with other US DOT modal agencies in keeping with the ITS JPO's coordination role. The ITS JPO works closely with NHTSA, FHWA, FTA, FMCSA, and MARAD to address key technical and policy challenges for automation.

- *Enterprise Data* – this program will continue existing efforts in operation data capture from stationary sensors, mobile devices, and connected vehicles, and the expansion into research activities involving the development of mechanisms for housing, sharing, analyzing, transporting, and applying the data for improved safety and mobility across all modes of travel. These efforts are the focus of DOT's Internet of Things and Smart Cities initiatives.

- *Interoperability* – this funds key enabling technical research on ITS Architecture and Standards, cyber security, human factors required for regulatory decision making, test beds to ensure a sound industrial base and national and international interoperability and economies of scale. The goal of this research is to ensure effective connectivity from the device level to the transportation system level.

- *Emerging Technologies* – this area scans the technology horizon for emerging technologies and trends. It addresses our statutory requirements for the Small Business Innovation Research program as well as conducts focused technology inquiries on emerging capabilities with a focus on future generations of transportation systems.

- *Accelerating Deployment* – this area seeks to spur adoption of technology and aid stakeholders and localities deploy maturing ITS systems. Funds are directed at technical assistance, training, outreach, program evaluation and stakeholder engagement to advance ITS work from research to initial adoption to wider scale deployment in coordination with other stakeholders at the federal, state, regional and local level.

ITS outreach efforts extend to the entire US DOT, leveraging modal research and applying innovative solutions to our nation's transportation challenges. The budget request is necessary to work across US DOT modes to implement results for the ITS Program to advance safe, efficient transportation systems. The funding supports related research that expands this technology to achieve benefits for mobility and the environment. The funding will also allow the program to accelerate deployment of ITS technologies through demonstration programs, grants, incentives, and other strategies. These efforts will enable the definition of the required performance areas and objectives and threshold performance criteria to allow the government, automotive industry, equipment manufacturers, and the standards development organizations to define the necessary preconditions needed to commercialize and deploy affordable connected vehicle fleets in the U.S. with safety performance superior to today's human operated vehicles.

State Planning & Research Program (SP&R – Research portion – Non-add)
The SP&R program is a set aside of five of the formula programs: National Highway Performance Program, Surface Transportation Block Grant Program, Congestion Mitigation & Air Quality Improvement Program, Highway Safety Improvement Program, and National Highway Freight Program that the States must use for planning and research purposes.

States must allocate a minimum of 25 percent of their SP&R apportionment for research, development, and technology activities. SP&R is intended to solve problems identified by the States, and typically involve research on new areas of knowledge; adapting findings to practical applications by developing new technologies; and the transfer of these technologies, including the process of dissemination, demonstration, training, and adoption of innovations by users.

States are encouraged to pool their funds in cooperative research efforts as a means of addressing national and regional issues and as a means of leveraging funds. This includes contributing to cooperative programs such as the National Cooperative Highway Research Program (NCHRP), the Transportation Research Board (TRB), and transportation pooled fund studies.

What Benefits Will Be Provided To The American Public Through This Request?

FHWA's continued commitment to highway research and the implementation of ground-breaking technology is changing the way roads, bridges, and other facilities are planned, designed, built, and maintained across the country. This commitment ultimately delivers a safer, more reliable transportation system that is both effective and environmentally sustainable.

Below are examples of ways the RT&E programs benefits the American public.

Transportation Workforce Training and Accessible Transportation
The National Network for the Transportation Workforce (NNTW) consists of five Regional Surface Transportation Workforce Centers to serve as a resource to support, grow and maintain a skilled and career-ready transportation workforce in their respective regions. The NNTW will help produce:

- *Better Data*: on transportation job needs and priorities within each region;
- *One-Stop Portals*: to transportation training and education programs;
- *Better Alignment*: of education and training to workforce skills gaps;
- *Direct Connections*: among industry, education, economic development and workforce communities;
- *Better Workers*: A sustainable pool of skilled and diverse workers.

Accessible Transportation Technologies Research Initiative (ATTRI): ATTRI, a multi-modal US DOT effort designed to enhance mobility choices for travelers with disabilities, is exploring development of transformative new applications in the areas of 1) wayfinding and navigation systems; 2) pre-trip and concierge services; 3) safe intersection crossing and 4) robotics and automation for accessible transportation. ATTRI applications will use universal design and inclusive Information Communication Technologies (ICT) to extend the benefits to all travelers and encourage widespread use and adoption. The Federal Transit Administration (FTA) , the ITS Joint Program Office, the National Institute of Disability and Rehabilitation Research and other Federal agencies are participating in ATTRI application development efforts. The ATTRI

team is also exploring solutions in the areas of mapping, standards, artificial intelligence, augmented and virtual reality.

Each year, over 100,000 local and Tribal transportation officials receive training in infrastructure management, safety, and workforce development through Local and Tribal Technical Assistance Program (LTAP/TTAP) centers. The Centers are located in all 50 States and Puerto Rico, with 7 additional regional centers serving Native American Tribal governments. In some rural areas, LTAP centers provide the only professional development and technical training the agency staff receives. LTAP/TTAP Centers are FHWA's primary connection for technology deployment to local agencies, and they also provide on-site technical assistance to aid local agencies to implement low-cost safety improvements and conduct roadway safety audits.

Consistently Improving USDOT's Safety Mission

EDC-Endorsed: High Friction Surface Treatment (HFST): This technology can dramatically and immediately reduce crashes and the related injuries and fatalities. HFSTs are site-specific application of very high-quality, durable aggregates using a polymer binder that restores and maintains pavement friction where the need for a safer pavement surface is the greatest. Maintaining the appropriate amount of pavement friction is critical for safe driving. This innovation has application to State departments of transportation (DOTs), counties, cities, tribes and federal lands agencies across the country. For example, Kentucky placed HFST on 26 curves and has seen an average reduction from 6.2 to 1.9 crashes per year at those locations. A before-and-after study from South Carolina DOT for a series of curve installations of HFST indicates a cost-benefit ratio of about 24 to 1.

EDC-Endorsed: Data Driven Safety Analysis (DDSA): DDSA employs newer, evidence-based models that provide state and local agencies with the means to quantify safety impacts similar to the way they do other impacts such as environmental effects, traffic operations and pavement life. This effort focuses on both predictive and systemic analyses—two types of data-driven approaches that state and local agencies can implement individually or in combination. Predictive analysis helps identify roadway sites with the greatest potential for improvement and quantify the expected safety performance of different project alternatives. Predictive approaches combine crash, roadway inventory, and traffic volume data to provide more reliable estimates of an existing or proposed roadway's expected safety performance. Systemic analysis uses crash and roadway data in combination to identify high-risk roadway features that correlate with particular crash types. Agencies have traditionally relied on crash history data to identify "hot spots," or sites with high crash frequency. However, severe crashes are widely dispersed over road networks, and their location and frequency fluctuate over time. Systemic analysis identifies locations that are at risk for severe crashes, even if there is not a high crash frequency. Practitioners can then apply low-cost countermeasures to those locations. The benefit is wider, but more targeted, safety investment. To date, 75 percent of states are applying DDSA in one or more of their project development processes.

EDC-Endorsed: Safe Transportation for Every Pedestrian (STEP): Cost-effective countermeasures with known safety benefits can help reduce pedestrian fatalities at uncontrolled crossing locations and un-signalized intersections. FHWA is promoting several pedestrian safety countermeasures. Road Diets can reduce vehicle speeds and the number of lanes pedestrians

cross, and they can create space to add new pedestrian facilities. Pedestrian hybrid beacons (PHBs) are a beneficial intermediate option between RRFBs and a full pedestrian signal. They provide positive stop control in areas without the high pedestrian traffic volumes that typically warrant signal installation. Pedestrian refuge islands allow pedestrians a safe place to stop at the midpoint of the roadway before crossing the remaining distance. This is particularly helpful for older pedestrians or others with limited mobility. Raised crosswalks can reduce vehicle speeds. Road Diets, pedestrian refuge islands, and PHBs are all considered proven safety countermeasures by the FHWA. Communities benefitting from their use include Austin, Texas, where at least 39 PHBs are already installed and in Michigan, the Department of Transportation (DOT) developed a Road Diets checklist to ensure smooth administrative procedures. STEP is an important action in FHWA's Strategic Agenda for Pedestrian and Bicycle Transportation, which is a collaborative framework for pedestrian and bicycle planning, design, and research efforts being developed over the next five years.

Innovative Technologies for Pedestrian Safety: Through the Small Business Innovation Research (SBIR) program, a small business developed a new stereovision-based approach for detecting pedestrians at intersections. Based on a concept borrowed from military tracking, the company used a new light-emitting diode (LED) stereo camera and advanced pedestrian-detection algorithms to distinguish pedestrians and vehicles on the roadways. FHWA and the FTA are collaborating on a follow-up project to research whether the information from the project can be used in connected-vehicle research to greatly reduce pedestrian fatalities. Another SBIR project developed a smartphone application called SmartCross that alerts pedestrians before crossing the street. Sending signals between the pedestrian's phone and the traffic signal box, the application becomes a warning sign to notify when it's safe for the pedestrian to step into the crosswalk.

Low Cost Safety Countermeasures: FHWA and 38 partner States evaluated the benefits of deploying over 40 low-cost highway safety countermeasures, such as offset improvements for left-turn lanes, increased retro-reflectivity at stop signs, and lane and shoulder width combinations on rural, two-lane, undivided roads.

Leading the development of Small Town and Rural Multimodal Networks:
The *Small Town and Rural Multimodal Networks* guide is a design resource and idea book to help small towns and rural communities support safe, accessible, comfortable, and active travel for people of all ages and abilities. This guide translates existing street design guidance and best practices for bicycle and pedestrian safety and comfort to the rural context, and provides examples of how to interpret and apply these design practices to create safe, accessible, and comfortable multimodal networks.

The FHWA Traffic Noise Model**:** version 3.0 (TNM 3.0) is the latest version of FHWA's noise analysis software. TNM 3.0 will replace TNM 2.5, which first came into use in 2004. Features of TNM 3.0 include integration with the ESRI Runtime for GIS implementation within the software as well as extensions that allow users to work within ArcGIS, AutoCAD, or MicroStation to develop TNM objects. TNM 3 integration with these common design packages will help improve project work flows and increase efficiencies in model development. The model also includes improved acoustics capability by incorporating calculation of all 1/3 octave bands and calculation of three dimensional spreading. These improvements help to increase the accuracy of

the model and help project sponsors assess noise impacts and design mitigation for nearby communities.

Increasing Public-Private Partnerships and Supporting Infrastructure Investment
Center for Excellence in Project Finance: The BATIC Institute: An AASHTO Center for Excellence will provide education and outreach to decision makers and transportation project leaders at state DOTs and local partner agencies. The Institute provides expertise in all forms of innovative transportation finance, including public-private partnerships, bonding, state infrastructure banks and federal credit assistance.

Leading Towards Innovation in Transportation
EDC-Endorsed: Slide-in Bridge Construction (SIBC): SIBC accelerates bridge construction whereby a new bridge is built next to an existing bridge out of the way of traffic. Once ready, the roadway is closed for a short period of time, the old bridge is quickly removed, and the new bridge is slid into place. Under SIBC, the bridge can be replaced in a matter of hours or days, instead of drivers dealing with lane closures and/or detours for months. The New York State DOT replaced two bridges on I-84 during a 20-hour time period over a weekend using the SIBC method; resulting in estimated savings of $900,000 in construction costs and $1.37 million in user delay costs. Together, the savings represented 22 percent of the $10.2 million construction cost of the project. (*Photo: New York State's Dingle Bridge Rd. replacement using slide-in bridge construction*)

Using Data Analysis to Improve Performance Management
SHRP2 Naturalistic Driving Study (NDS) and Roadway Information Database (RID): Through a cooperative agreement with the Transportation Research Board (TRB), FHWA facilitated collection of an unprecedented amount of actual driver behavior data (including video) and associated road conditions. FHWA continues to fund TRB's oversight and public availability of NDS data. The combined data will help researchers and practitioners identify the behaviors and road designs that cause and/or can avert collisions. The National Highway Traffic Safety Administration (NHTSA) is using the data for driver research. FHWA and AASHTO are also actively seeking proposals from the research community to use these databases on projects to advance highway safety goals. FHWA recently established a Safety Training and Analysis Center (STAC) at FHWA's TFHRC to expand access to these data bases and apply to road safety questions.

e-Construction: FHWA research supports efforts to advance e-construction, construction automation and other technologies to accelerate and/or improve construction quality and performance-based construction standards.

Infrastructure Preservation: FHWA research supports advancements to support timely and appropriate application of effective treatments to preserve infrastructure in a state of good repair.

Implementation and Improvement of Performance Management: Through the Long Term Pavement and Long Term Bridge Performance Programs, FHWA is delivering data and analytical results to provide the understanding of infrastructure performance that is needed to achieve effective management. Other research is investigating "next generation" performance measures, that will support improvements in performance monitoring and management practices.

Materials Innovations: FHWA research is advancing the use of Ultra High Performance Concrete (UHPC) to improve highway bridges, and developing guidance and test methods to improve the durability and sustainability of highway pavements.

Data Collection and Analysis: The FHWA research program supports data collection and analysis to assist and improve policy and decision making. For example, the National Household Travel Survey collects data on daily trips, including purpose of the trip, means of transportation used, and other useful data used to quantify travel behavior and analyze changes in travel characteristics over time, among other purposes. FHWA also supports the Highway Performance Monitoring System (HPMS), a national-level highway information system that includes data on the extent, condition, performance, use, and operating characteristics of the nation's highways. The purpose of HPMS is to support a data driven decision process within FHWA, the USDOT, and Congress.

Leading towards automation in transportation

The ITS Joint Program Office leads the Department's Connected Vehicle work which is laying the foundation for the nationwide deployment of automated vehicles. ITS provides the best opportunity to leverage infrastructure investments to cost-effectively increase safety, mobility, and efficiency of the transportation network. Additionally, the public will gain a leading-edge solution to support private and secure, trusted, and authenticable transportation communications.

In FY 2018, the ITS program will continue to support efforts on the Connected Vehicle Pilots to significantly accelerate the deployment of research through the deployment of connected, integrated, automated transportation systems on three major pilots. These research pilots will enable the definition of the required performance areas and objectives and threshold performance criteria to allow the government, automotive industry, equipment manufacturers and standards development organizations to define the necessary preconditions needed to commercialize and deploy affordable connected and integrated transportation systems in the U.S. with safety, mobility, and efficiency performance superior to the norm.

ITS, connected vehicles, and automated vehicles are the next logical step in developing a robust transportation infrastructure to demonstrate what is possible when communities use technology to connect transportation assets into an interactive network. The ITS Program will continue to support efforts on the Smart City Challenge.

The FHWA research program is also exploring connected automation technologies that build upon existing commercial products in cars and trucks. Connected and automated vehicles could enable improvements to vehicle performance and traffic operations that would result in additional, and very significant, public as well as private benefits through less recurring traffic

congestion and more reliable travel. Under its Integrated Highway Prototype project, FHWA will develop research vehicles that incorporate connected automation applications for speed harmonization, platooning through coordinated adaptive cruise control (CACC), lane change/merge, and signalized intersection approach and departure. These applications will be tested at the U.S. Army's Aberdeen Test Center and at the Department of Homeland Security's Federal Law Enforcement Test Center, with whom FHWA have partnership agreements. The algorithms, data, and other results from the testing will be shared with both the vehicle manufacturers who are considering commercial applications, and the infrastructure stakeholders who can begin considering how these innovative technologies might be used to reduce traffic congestion, improve travel reliability, and improve efficiency for cars and trucks.

See the Office of the Secretary of Transportation (OST) -- Office of the Assistant Secretary for Research and Technology budget submission for details about the University Transportation Centers program and the Bureau of Transportation Statistics.

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Executive Summary
Federal Allocation Programs

What Is The Request And What Funds Are Currently Spent On The Program?
Our FY 2018 budget request for the Federal Allocation Programs includes: $80.0 million for the Construction of Ferry Boats and Ferry Terminal Facilities Program; $10.0 million for the Disadvantaged Business Enterprise (DBE); $100.0 million for the Emergency Relief (ER) program; $4.0 million for the Highway Use Tax Evasion Projects; $10.0 million for the On-The-Job Training (OJT) Program; and $200.0 million for the Territorial and Puerto Rico Highway Program.

What Is The Program And Why Is It Necessary?
This program category contains six separate programs that will provide disparate functions to assist federal highways. This includes assistance: to construct ferry boat and ferry terminals to enhance the federal-aid network; for States to assist certified DBE firms in becoming competitive when seeking to obtain highway and bridge construction contracts; to States and localities for the repair of damage to Federal-aid highways from natural events and catastrophic failures due to an external cause; to support highway use tax evasion enforcement efforts; for States to enhance the development of our nation's highway construction industry workforce; and for Puerto Rico and U.S. territories to build vital transportation infrastructure important for their mobility needs and to serve national defense and global trade needs.

Why Do We Need To Fund The Program At The Requested Level?
These diverse programs serve key functions that provide long-standing, positive impacts on the U.S. highway infrastructure.

What Benefits Will Be Provided To The American Public Through This Request?
The long-standing programs in the overall Federal Allocation Programs perform the following vital functions: construct ferry boat and ferry terminals to improve the mobility of the transportation network; assist certified DBE firms in becoming competitive when seeking to obtain highway and bridge construction contracts; help States, territories, and localities repair damage to Federal-aid highways from natural events and catastrophic failures due to an external cause; support highway use tax evasion enforcement efforts; enhance development of our nation's highway construction industry workforce, particularly for historically underrepresented groups; and build vital transportation infrastructure in Puerto Rico and the U.S. territories that is important for their mobility needs and to serve national defense and global trade needs.

Detailed Justification
Construction of Ferry Boats and Ferry Terminal Facilities

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Construction of Ferry Boats and Ferry Terminal Facilities ($80 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Allocation Programs				
Construction of Ferry Boats and Ferry Terminal Facilities	80,000	80,000	80,000	-----
Disadvantaged Business Enterprise [1/]	10,000	10,000	10,000	-----
Emergency Relief (exempt from obligation limitation) [2/]	100,000	100,000	100,000	-----
Highway Use Tax Evasion Projects [1/]	4,000	4,000	4,000	-----
On-the-Job Training [1/]	10,000	10,000	10,000	-----
Territorial and Puerto Rico Highway Program	200,000	200,000	200,000	-----
Total	**404,000**	**404,000**	**404,000**	-----

1/ Programs funded as set-asides from Administrative Expenses.
2/ In FY 2016 $6.8 million and in FY 2017 $6.9 million was sequestered from Emergency Relief (sequestration not reflected in table).

What Is The Program And Why Is It Necessary?

This is an allocated program that will provide funding to construct ferry boats, and ferry terminal facilities. Funds are proportionally distributed to eligible ferry operations, based on the number of ferry passengers, the number of vehicles carried, and the total route miles serviced.

Ferry services are important links in the network of Federal-aid highways. Often times these carry significant numbers of passengers and vehicles. In 2009, the natonal ridership was in excess of 100 million passengers. In many cases, they are the only reasonable form of transportation, particularly on coastal islands which have year round residents.

What Does This Funding Level Support?

Our FY 2018 budget request of $80 million is in line with the FAST Act. This level of funding is required to maintain and improve important transportation connections on the Federal-aid highway system, as well as provide access to remote areas where other modes of transportation may not be available for passengers and vehicles.

What Benefits Will Be Provided To The American Public Through This Request?

The Construction of Ferry Boats and Ferry Terminal Facilities program addresses mobility and access in urban and rural areas by providing valuable assistance to help States and other entities replace or acquire new ferry boats; replace propulsion systems with newer cleaner and more energy efficient power plants; update navigational control systems; construct new terminals; improve access for the disabled; and replace and construct new docking facilities. Through these activities, the program provides vital connections on the network of Federal-aid highways, increasing mobility and safety particularly for citizens for which ferry services are the only

reasonable transportation option. To date, this program has made available funding for 119 ferry operations in 35 states and one US territory.

Detailed Justification
Disadvantaged Business Enterprise Supportive Services (DBE/SS) Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Disadvantaged Business Enterprise Supportive Services ($10 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Allocation Programs				
Construction of Ferry Boats and Ferry Terminal Facilities	80,000	80,000	80,000	-----
Disadvantaged Business Enterprise [1/]	10,000	10,000	10,000	-----
Emergency Relief (exempt from obligation limitation) [2/]	100,000	100,000	100,000	-----
Highway Use Tax Evasion Projects [1/]	4,000	4,000	4,000	-----
On-the-Job Training [1/]	10,000	10,000	10,000	-----
Territorial and Puerto Rico Highway Program	200,000	200,000	200,000	-----
Total	**404,000**	**404,000**	**404,000**	-----

1/ Programs funded as set-asides from Administrative Expenses.
2/ In FY 2016 $6.8 million and in FY 2017 $6.9 million was sequestered from Emergency Relief (sequestration not reflected in table).

What Is This Program And Why Is It Necessary?

The DBE/SS program was established by regulation (23 CFR 230, Subpart B) under statutory authority at 23 U.S.C. 140(c) to develop, conduct, and administer training and provide technical assistance programs to increase the efficiency of small businesses owned and controlled by socially and economically disadvantaged individuals to compete, on an equal basis, for federally-assisted highway contracts.

The program supports State DOT DBE programs required for recipients of federal highway, transit and aviation funds (49 CFR Part 26). The DBE/SS funds made available each fiscal year are allocated by the FHWA Office of Civil Rights to State DOTs for a 100% federal share, with no State matching required. The primary purpose of the DBE/SS program is to ensure training, capacity building assistance, and services (e.g., training in business development; mentoring, bonding and financial assistance; marketing; and accounting) to firms certified in the DBE program. This training and support is intended to increase their activity within the program, and to facilitate the firms' development into viable, self-sufficient organizations capable of competing for, and performing on, federally assisted highway projects. Beginning FY 2015, FHWA requires State DOTs accepting DBE/SS funds to create and administer Business Development Programs (BDPs). State DOTs should select certified DBE candidates for BDPs, focusing on underperforming DBEs with the desire and potential for growth. The BDP must assess these DBEs in all areas of performance and business acumen and create a Business Development Plan tailored to their individual needs.

The program is necessary to assist a sector of our small business community for which there is clear evidence of current discrimination and/or the lingering effects of past discrimination that has created barriers to fair competition on highway contracts.

What Does This Funding Level Support?

Our $10 million FY 2018 budget request is in line with the FAST Act, and is equal to the FY 2017 funding level. Our request level supports the ability of States to enhance these vital DBE/SS programs. FHWA requires State DOTs to use their DBE/SS allocation to create Business Development Programs to ensure that DBEs are afforded the opportunity to be evaluated and provided a structured process to receive firm-specific training and guidance to be competitive within the heavy highway marketplace.

What Benefits Will Be Provided To The American Public Through this Request?

The DBE/SS program is an essential tool for a successful DBE program. The DBE/SS program benefits the American Public by assisting small and disadvantaged firms in becoming competitive. These programs help create a level playing field in which these firms have a fair opportunity to participate in federally-assisted contracts without competing against discriminatory barriers related to race, color, gender, or national origin that are so prevalent in the transportation industry.

Detailed Justification
Emergency Relief (ER) Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Emergency Relief Program ($100 million)
($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Allocation Programs				
Construction of Ferry Boats and Ferry Terminal Facilities	80,000	80,000	80,000	-----
Disadvantaged Business Enterprise [1/]	10,000	10,000	10,000	-----
Emergency Relief (exempt from obligation limitation) [2/]	100,000	100,000	100,000	-----
Highway Use Tax Evasion Projects [1/]	4,000	4,000	4,000	-----
On-the-Job Training [1/]	10,000	10,000	10,000	-----
Territorial and Puerto Rico Highway Program	200,000	200,000	200,000	-----
Total	**404,000**	**404,000**	**404,000**	-----

1/ Programs funded as set-asides from Administrative Expenses.
2/ In FY 2016 $6.8 million and in FY 2017 $6.9 million was sequestered from Emergency Relief (sequestration not reflected in table).

What Is The Program And Why Is It Necessary?

Congress authorized in Title 23, United States Code, Section 125, a special program from the Highway Trust Fund for the repair or reconstruction of Federal-aid highways and roads on Federal lands which have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause. This program, commonly referred to as the Emergency Relief or ER program, supplements the commitment of resources by States, their political subdivisions, or other Federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions.

Examples of natural disasters include floods, hurricanes, earthquakes, tornadoes, tidal waves, severe storms, and landslides. A catastrophic failure is defined as the sudden and complete failure of a major element or segment of the highway system that causes a disastrous impact on transportation services. Additionally, the cause of the catastrophic failure must be determined to be external to the facility. A bridge suddenly collapsing after being struck by a barge is an example of a catastrophic failure from an external cause. Failures due to an inherent flaw in the facility itself do not qualify for ER assistance.

Emergency repairs accomplished in the first 180 days after the occurrence of the disaster to restore essential traffic, minimize the extent of damage, or protect the remaining facilities may be reimbursed at a 100 percent Federal share. ER funds for permanent repairs and for emergency repair work accomplished more than 180 days after an event are at the pro rata Federal-aid share that would normally apply to the facility being repaired. This 180 day period can be extended in consideration of any delay in the State's ability to access damaged facilities to evaluate damage and the cost of repair.

Following the 2005 Gulf Coast Hurricanes, more than $2.8 billion in ER funds were provided to assist States in the repair and recovery of Federal-aid highways damaged by the hurricanes. These funds were instrumental in assisting the Gulf Coast region with needed recovery efforts following the devastating impact from Hurricanes Katrina, Rita, and Wilma. After Superstorm Sandy in 2012, over $700 million was provided to Mid-Atlantic and Northeast states. Twenty-nine million of this funding was provided within three days after the storm to allow States to address their most critical emergency needs. Most recently, $10 million of ER funds was provided to Georgia the day after the collapse of a portion of Interstate 85 bridge in Atlanta to restore emergency access and initiate critical repairs. The immediate availability of ER funds was essential in providing these funds.

When a natural disaster or catastrophe strikes, the ER program is available to provide assistance to get damaged highways open to essential traffic. Longer term permanent repairs to restore damaged highways are also funded through the ER program. When economically justified, betterments to damaged highways, aimed at improving the resiliency of those facilities, would be eligible for funding through the ER program. Additionally, the law makes eligible the cost of a comparable facility that is designed to current geometric and construction standards required for the types and volume of traffic the facility will carry over its design life.

What Does This Funding Level Support?

The ER program has been funded through a recurring annual authorization of $100 million since 1972. When ER program needs exceed available funding, Congress has provided supplemental appropriations to cover the ER backlog.

Over the past 12 years, the costs of nationwide ER events, not including large scale disasters (e.g., Hurricane Katrina, Hurricane Sandy) have averaged about $360 million annually. Within the same time frame, including large scale disasters, the average costs increased to about $730 million annually. Over the past 20 years, $14 billion has been provided through supplemental appropriations to the ER program, in addition to the annual $100 million authorization. In FY 2017, Congress appropriated $1.5 billion for nationwide disasters; that appropriation is not part of the Federal-aid Highways account and is funded by the General Fund.

In 2017, ER funds were provided for 92 separate disasters. These needs have been funded from the annual ER appropriation as well as supplemental funds provided by Congress. As of April 12, 2017, the estimate of the cost to repair previous ER damage is $2.0 billion.

What Benefits Will Be Provided To The American Public Through This Request?

ER program funds are critical to maintaining mobility and safety for the American public following a disaster. Natural disasters and catastrophes that destroy highways and bridges are unpredictable events and can occur anywhere in the country. The ER program provides funding to States for the repair and reconstruction of Federal-aid highways and roads on Federal lands following a disaster.

Detailed Justification
Highway Use Tax Evasion Projects

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Highway Use Tax Evasion Projects ($4 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Allocation Programs				
Construction of Ferry Boats and Ferry Terminal Facilities	80,000	80,000	80,000	-----
Disadvantaged Business Enterprise [1/]	10,000	10,000	10,000	-----
Emergency Relief (exempt from obligation limitation) [2/]	100,000	100,000	100,000	-----
Highway Use Tax Evasion Projects [1/]	4,000	4,000	4,000	-----
On-the-Job Training [1/]	10,000	10,000	10,000	-----
Territorial and Puerto Rico Highway Program	200,000	200,000	200,000	-----
Total	**404,000**	**404,000**	**404,000**	-----

1/ Programs funded as set-asides from Administrative Expenses.
2/ In FY 2016 $6.8 million and in FY 2017 $6.9 million was sequestered from Emergency Relief (sequestration not reflected in table).

What Is This Program And Why Is It Necessary?

The Highway Use Tax Evasion Projects program provides funding to the Internal Revenue Service (IRS) and the States to carry out intergovernmental enforcement efforts along with training and research to reduce evasion of payment of motor fuel and other highway use taxes; which are the principal sources for Federal and State highway funding. Consistent with the FAST Act, FHWA requests up to $4 million to fund the vital Highway Use Tax Evasion Projects program in FY 2018. Of this amount, $2 million is only available to make grants for intergovernmental enforcement efforts, including research and training. The intergovernmental enforcement efforts grants are awarded to State agencies through a competitive application process from which FHWA and the IRS make selections based on the most innovative, intergovernmental proposals. The remaining $2 million may, at the disretion of the Secretary of Transportation, either be awarded for intergovernmental enforcement efforts grants or allocated to the IRS for their enforcement efforts.

While the statute allows for the IRS to determine the use of their allocations, they must be used in some fashion related to the identification and elimination of highway use tax evasion. While the initiatives change from year to year, they include office examinations, refinery and terminal examinations, and on-road enforcement in areas such as dyed diesel fuel use. Diesel fuel that has a red dye introduced has no Federal and State fuel excise taxes imposed and is intended for use only in non-highway situations. The enforcement is to identify and penalize those who use dyed diesel fuel on the highway.

Since no system exists that can definitively track all motor fuels in the distribution system in the U.S., it is impossible to determine if all fuel is reported on the Federal and State level. Thus, it is difficult to accurately measure the level of highway fuel tax evasion. However, the Joint

Operations Center for National Fuel Tax Compliance (JOC), a joint FHWA/IRS/State initiative, is making great advances in tracking the fuel. Problem areas for evasion include imports, production and distribution of fuels outside of the normal distribution system (including alternative fuels), and correct State identification of sales. The best validation of the need for continued efforts in this area is the assessments made by the IRS and the State agencies in the area of evasion. As with many areas of taxation, new technologies and new fuels are no exception, there are always people willing to find ways of collecting taxes from customers, while never remitting the taxes to the proper agency.

Our FY 2018 request will continue to fund IRS initiatives, including the expansion of the JOC, and at the State level for new, innovative, and intergovernmental enforcement efforts.

What Does This Funding Level Support?

Our $4 million request for FY 2018 is in line with the FAST Act and will be used by the IRS, other Federal agencies, and the States to carry out significant intergovernmental enforcement efforts to increase collections, along with training and research, to reduce evasion of payment of motor fuel and other highway use taxes.

Through the efforts of this program the IRS has launched a number of initiatives including mislabeled imported fuel examinations ($26.9 million in assessments in 2012), examinations of mislabeled products at refineries and terminals ($9.1 million in assessments in FY 2013), and examinations of questionable credit claims ($37.4 million in assessments, $15.3 million in disallowed credits in 2013). These are just some of the efforts supported in part by the annual allocation to the IRS. From FY 2010 through FY 2012 $30 million in funding was provided to the IRS, which resulted in $491 million in assessments through various activities including internal audits, refinery and terminal inspections, and retail truck inspections. The IRS initiatives are not solely funded from Highway Use Tax Evasion funds, but they provide a significant portion of the funding.

The following table shows examples of initiatives at the State level, comparing amounts provided by this program and the results.

Year	Agency	Expenditures	Results	Description
2014	Arizona DOT	$41,112	$570,740	Dyed diesel enforcement, data validation, Port of Entry assessments.
2014	Kentucky State Police	$3,992	$79,388	Vehicle screenings at weigh stations.
2014	Missouri Criminal Investigation Bureau	$11,403	$21,440	Dyed fuel investigations. Reports that collections are up over 1300% since program started with grant funding.
2014	North Dakota Department of Revenue	$8,314	$29,500	Dyed diesel fuel on-highway enforcement and IFTA enforcement.

As the data indicates there are significant findings at the IRS and State levels, however, highway use tax evasion persists with new methods of evasion regularly employed. The continued funding of this program would not only provide funding for the successful efforts already in place, but also for enhanced practices resulting from training and vital equipment, such as enhanced motor fuel tracking computer software that is critical for sharing of information between the IRS and States.

Highway Use Tax Evasion Projects program funding can also be used for training in the assessment of highway tax evasion. Many States have opted for this training which provides great value by preparing practitioners to complete the valuable assessments noted in the above table.

What Benefits Will Be Provided To The American Public Through This Request?

The collection of highway use taxes has always been an important part of the Federal-Aid program. It is critical that we collect all of the highway use taxes that are applicable at the Federal and State levels. This program will collect transportation revenues at the Federal and State level, and will identify trends and patterns that can be shared with other tax collection agencies to ensure the proper payment of highway use taxes. As the FAST Act seeks to provide critical growth in surface transportation, this program supports that goal in collecting all taxes that support the funded programs.

Throughout its history, the Highway Use Tax Evasion Projects program has been able to identify not only isolated incidents, but also patterns of tax evasion that can be identified through the enhanced analysis of data, in some cases using non-traditional data. The JOC uses nearly 100 unique data sources to identify anomalies, which often result in assessments. These assessments represent valuable tax dollars that then can be properly used to increase the safety and mobility of our nation’s roads and bridges.

Detailed Justification
On-the-Job Training

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – On-the-Job Training ($10 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Allocation Programs				
Construction of Ferry Boats and Ferry Terminal Facilities	80,000	80,000	80,000	-----
Disadvantaged Business Enterprise [1/]	10,000	10,000	10,000	-----
Emergency Relief (exempt from obligation limitation) [2/]	100,000	100,000	100,000	-----
Highway Use Tax Evasion Projects [1/]	4,000	4,000	4,000	-----
On-the-Job Training [1/]	10,000	10,000	10,000	-----
Territorial and Puerto Rico Highway Program	200,000	200,000	200,000	-----
Total	**404,000**	**404,000**	**404,000**	-----

1/ Programs funded as set-asides from Administrative Expenses.
2/ In FY 2016 $6.8 million and in FY 2017 $6.9 million was sequestered from Emergency Relief (sequestration not reflected in table).

What Is This Program And Why Is It Necessary?

The OJT/SS program was established by regulation (23 CFR 230, Subpart A) under statutory authority at 23 USC 140(b) to support State DOT On-the-Job Training program requirements. The funds made available each fiscal year are allocated by the FHWA Office of Civil Rights to the State DOTs for a 100% federal share, with no State matching required. As recipients of federal transportation funds, the FHWA requires each State DOT to have an On- the-Job Training (OJT) program. This program requires prime contractors participating on federally-assisted contracts to establish apprenticeship and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions. The OJT/SS program provides funds for State DOTs to implement skills training programs to prepare individuals, focusing on historically underrepresented groups, to participate in the highway construction workforce as trainees and apprentices on federally-assisted construction contracts as part of the States' OJT Programs.

The OJT/SS Program is necessary to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts. The National Summer Transportation Institute (NSTI) Program and the Summer Transportation Internship Program for Diverse Groups (STIPDG) Program are also supported with OJT/SS funds. These programs are necessary to further strengthen FHWA efforts to develop the highway construction workforce of the future by introducing individuals to this industry at the more formative stages of their lives.

What Does This Funding Level Support?

Our $10 million FY 2018 budget request is in line with the FAST Act, and is equal to the FY 2016 funding level and the FY 2017 level. FHWA now strongly encourages States accepting

OJT/SS funds to partner with other state and local entities, such as other agencies, colleges and universities, workforce development boards, unions, etc., with existing training, recruiting and job placement capabilities. Such partnerships will focus skills training in areas of the industry in which State and localities have identified current and future gaps. Partnering will also improve the quality of the services provided to participants as well as have a greater likelihood of success in actual long term job placement. Further, in order for States to receive funding in subsequent years, they must demonstrate program outcomes through accomplishment reports that directly address objective measurements such as the number of program participants trained, the type of career job development training provided, the number of participants employed as a result of the training received, and the dollar cost per program participant. This funding request level is required to continue to assist States with administering these programs that are vital in training our future workforce.

What Benefits Will Be Provided To The American Public Through this Request?

The American Public benefits because this program ensures continuity of our nation's current and future highway construction industry workforce by providing the development and diversity of skilled labor. A skilled workforce is vital to constructing and maintaining a safe and efficient transportation system.

Detailed Justification
Territorial and Puerto Rico Highway Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Territorial and Puerto Rico Highway Program ($200 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Federal Allocation Programs				
Construction of Ferry Boats and Ferry Terminal Facilities	80,000	80,000	80,000	-----
Disadvantaged Business Enterprise [1/]	10,000	10,000	10,000	-----
Emergency Relief (exempt from obligation limitation) [2/]	100,000	100,000	100,000	-----
Highway Use Tax Evasion Projects [1/]	4,000	4,000	4,000	-----
On-the-Job Training [1/]	10,000	10,000	10,000	-----
Territorial and Puerto Rico Highway Program	200,000	200,000	200,000	-----
Total	**404,000**	**404,000**	**404,000**	-----

1/ Programs funded as set-asides from Administrative Expenses.
2/ In FY 2016 $6.8 million and in FY 2017 $6.9 million was sequestered from Emergency Relief (sequestration not reflected in table).

What Is The Program And Why Is It Necessary?

This program provides funding to Puerto Rico and the four territories of American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the United States Virgin Islands. From our FY 2018 budget request of $200 million, $158 million would be provided to Puerto Rico by authorization and the remaining $42 million is divided among the four territories via an administrative formula.

Fifty percent of the funds provided to Puerto Rico must be spent on projects eligible under the National Highway Performance Program (NHPP), twenty five percent must be spent on projects eligible under the Highway Safety Improvement Program (HSIP), and the remaining twenty five percent can be spent for any purpose under Chapter 1 of 23 U.S.C. The location and eligibility requirements are similar to those that apply to the States.

Funds provided to the four territories may be used for projects eligible under the Surface Transportation Block Grant Program (STBG); preventive maintenance; ferry boats, terminals, and approach roadways; engineering, economic and planning studies; regulation and equitable taxation of highways; and research and development. Territorial Funds are generally subject to the location requirements of the STBG, except that rural minor collector routes are eligible. The four programs are administered under individual agreements between the Secretary and the chief executive officer of each of the territories.

Territorial and Puerto Rico Highway Program funding is critical to providing transportation infrastructure to Puerto Rico and the four territories. Puerto Rico and the four territories have military facilities or serve a strategic role important to national defense. They also contribute to the national economy through tourism, agriculture and access to foreign trade.

What Does This Funding Level Support?

Our FY 2018 budget request supports critical transportation infrastructure in Puerto Rico and the four territories. This will allow for access to military facilities key to national defense, as well as maintain and improve infrastructure vital to the regions' tourism, agriculture, and foreign trade.

What Benefits Will Be Provided To The American Public Through This Request?

The Territorial and Puerto Rico Highway Program has provided for the construction of critical infrastructure in Puerto Rico and the four territories. It helps them to develop economically and contribute to the national economy. It also provides critical infrastructure that serves key facilities which in themselves serve a strategic role for national defense.

Executive Summary
Transportation Infrastructure Finance and Innovation Act (TIFIA) Program

What Is The Request And What Funds Are Currently Spent On The Program?
DOT is requesting $285 million for the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program in FY 2018, which is consistent with the level authorized under the FAST Act. The TIFIA program provides critical financing support to infrastructure projects across the country, and is a central tool for leveraging both public and private investment. DOT's ongoing work to implement a new National Surface Transportation and Innovative Finance Bureau, authorized under the FAST Act, will continue to expand access to, and demand for, this already successful program.

What Is The Program and Why Is It Necessary?
The TIFIA Program provides Federal credit assistance to surface transportation projects of national or regional significance. The TIFIA Program leverages Federal dollars in a time of scarce budgetary resources, facilitating private participation in transportation projects and encouraging innovative financing mechanisms that help accelerate project delivery. By offering flexible repayment terms and attracting private capital, the TIFIA Program stimulates infrastructure investment that would be significantly or permanently delayed without TIFIA financing.

What Does This Funding Level Support?
The TIFIA Program FY 2018 funding level of $285 million is essential in meeting the continued demand for TIFIA credit support. Despite the FAST Act significantly reducing funding for the TIFIA Program, the demand and need for the program is as strong as ever. Additionally, the requested funding will support work to meet new requirements pursuant to the FAST Act, which include, among other changes, increased funding flexibility for local governments, transit oriented development, and rural infrastructure projects. Additionally, it will support administrative resources to meet the TIFIA Program's staffing needs.

What Benefits Will Be Provided To The American Public Through This Request?
The TIFIA Program will make possible the delivery of significant transportation projects throughout the United States. It will also facilitate projects that would otherwise be delayed or deferred due to lack of funding. By stimulating investment in the country's transportation infrastructure, the TIFIA program will improve the economy – it will help create jobs, improve mobility and enhance transportation options via new eligibilities under the FAST Act for transit-oriented development, help American businesses improve productivity and competitiveness, and improve access in local as well as rural communities.

Detailed Justification
Transportation Infrastructure Finance and Innovation (TIFIA) Program

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – TIFIA Program ($285 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
TIFIA Program (loan program subsidies)				
TIFIA Program (loan program subsidies)	275,000	275,000	285,000	10,000
Total	**275,000**	**275,000**	**285,000**	**10,000**

What Is This Program And Why Is It Necessary?

Congress created the TIFIA Program as part of its 1998 enactment of the Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-78), as amended by the TEA-21 Restoration Act (Title IX, P.L. 105-206), further amended in 2005 by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, P.L 109-59), amended and restated in 2012 by the Moving Ahead for Progress in the 21st Century Act (MAP-21, P.L 112-141), and most recently, as amended in 2015 by the Fixing America's Surface Transportation Act (FAST, P.L. 114-94).

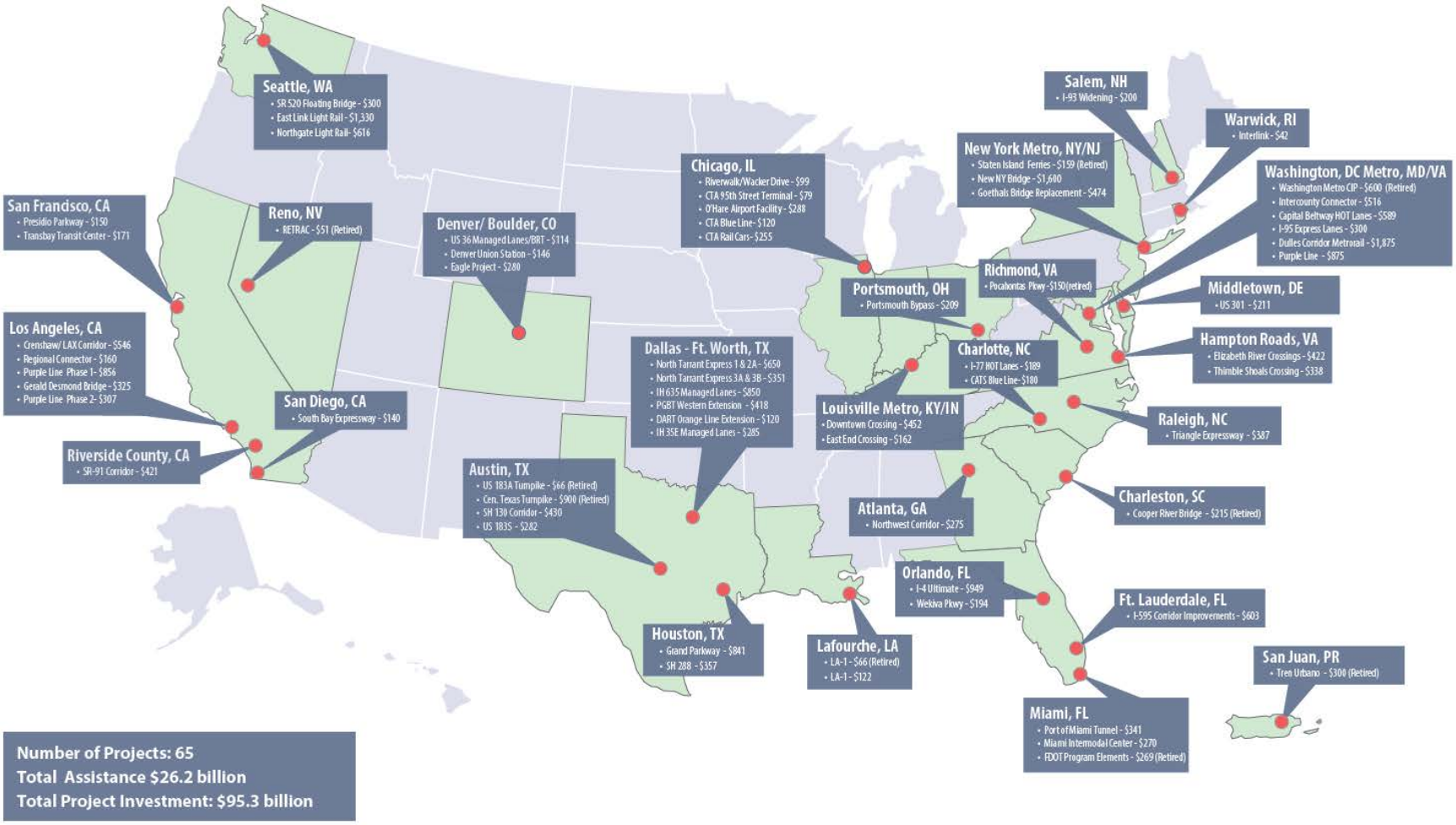
The TIFIA Program is a Federal financing program that provides credit assistance to sponsors of surface transportation projects. The Program offers three types of credit assistance: direct loans, loan guarantees, and lines of credit. The Office of the Secretary oversees the TIFIA program, including the evaluation of individual projects, and provides overall policy direction and program decisions for the TIFIA Program.

Pursuant to the FAST Act, DOT is authorized in the amount of $1.435 billion for the full 5-year period. This includes $275 million in Federal Fiscal Year (FY) 2016 funds; $275 million in FY 2017 funds; $285 million in FY 2018 funds; $300 million in FY 2019 funds; and $300 million in FY 2020 funds. Additional funds may also be available from funding authority carried over from previous fiscal years. Any funding authority not obligated in the fiscal year for which it is authorized remains available for obligation in subsequent years. The TIFIA funding authority is subject to an annual obligation limitation that may be established in appropriations law.

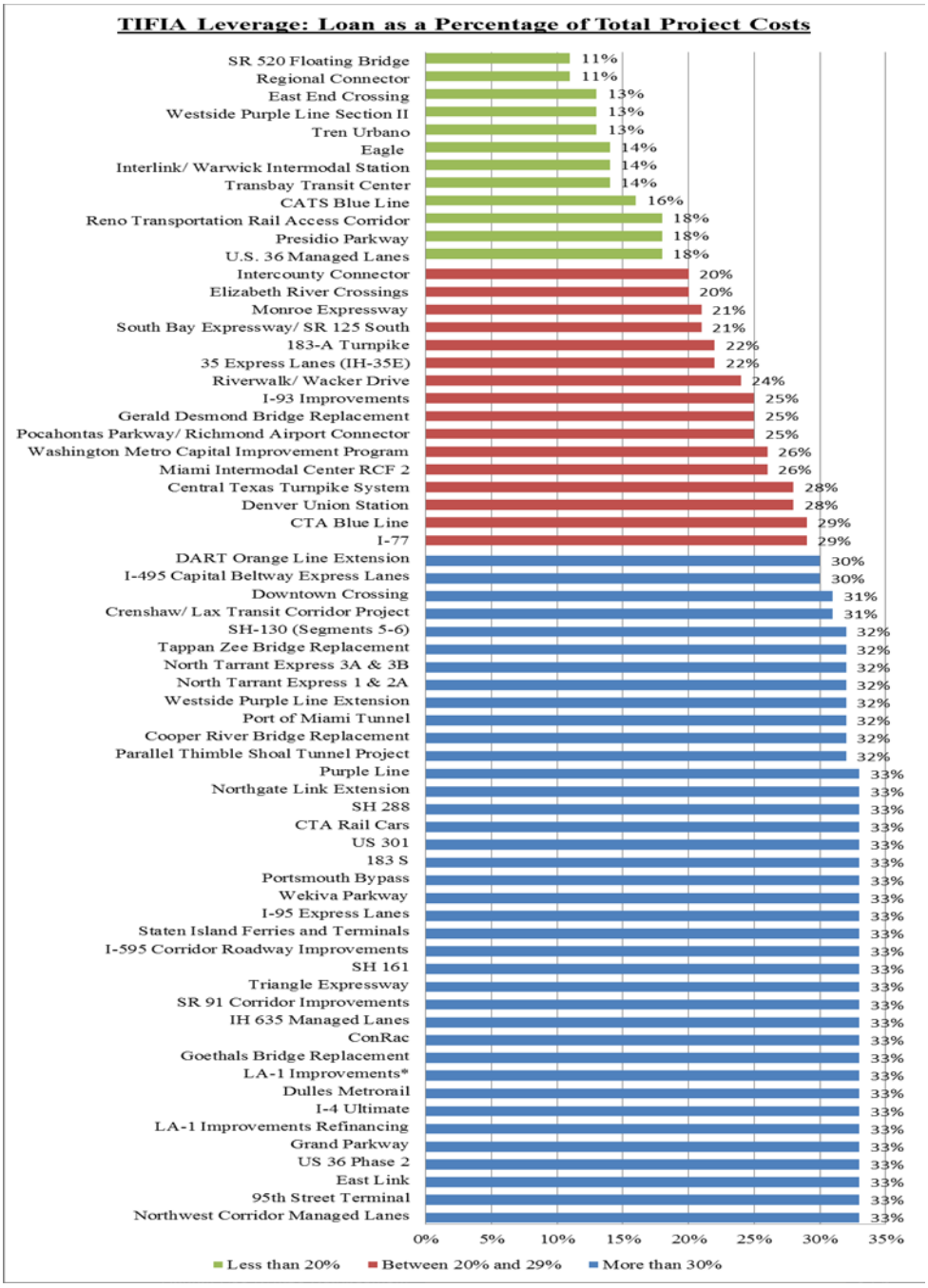
In addition to direct funding for the TIFIA program, the FAST Act permits the use of certain Federal-aid funds to cover the subsidy and administrative costs associated with TIFIA credit assistance. Under the FAST Act, Surface Transportation Block Grant Program funds (Section 133), National Highway Performance Program funds (Section 119), and Nationally Significant Freight and Highway Projects Program grant funds (Section 117) may be used by eligible recipients to cover the subsidy and administrative costs of TIFIA credit assistance. Similarly, TIGER program funds may also be used to pay for such costs.

The Program has played a significant role in delivering infrastructure projects. Since its launch, the TIFIA Program has financed 65 diverse projects across the United States, including 5 intermodal projects, 42 highway projects, and 18 transit projects. Currently, the TIFIA Program's portfolio represents over $95 billion in infrastructure investment spread across the country. Under MAP-21 and the FAST Act, the TIFIA Program has dramatically increased its investment and expanded its portfolio into new states and municipalities. For instance, the TIFIA Program now has projects in the States of Delaware, Georgia, Indiana, Kentucky, New Hampshire, New Jersey, and Ohio. The TIFIA Program's portfolio spans all regions in the country, covering a total of 21 states, as well as the District of Columbia and Puerto Rico.

Locations of TIFIA Investment ($ in millions)



The TIFIA Program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital to projects. The TIFIA Program maximizes limited Federal resources to deliver large infrastructure investments. Historically, each dollar of TIFIA funding authority has allowed DOT to provide approximately $10 in credit assistance. In recent years, DOT has been able to leverage TIFIA funds to support closer to $14 in credit assistance. Given statutory changes in the TIFIA credit program under the FAST Act, and the need to calculate credit subsidies on a project-by-project basis, actual lending capacity could vary. On average, TIFIA has supported total infrastructure investment of 3 to 4 times the amount of total credit assistance it has made available.



The TIFIA Program is necessary because of its role in stimulating transportation infrastructure investments that would be temporarily or permanently delayed without TIFIA financing. The Program leverages Federal resources to accelerate project delivery and facilitate private participation in transportation infrastructure projects.

What Does This Funding Level Support?

Since the beginning of FY 2015, the Department has closed 18 projects and extended nearly $7 billion in credit support to stimulate nearly $23 billion in infrastructure investment.

FY 2015 Activity: The Department closed seven projects totaling nearly $9 billion in infrastructure investment in FY 2015. One example is the East Link project in the State of Washington.

The East Link Project: In January 2015, the Department closed a $1.33 billion loan for this transit project. The project will construct a 14.5 mile light rail line across the I-90 floating bridge between Seattle and Redmond, Washington. According to Sound Transit, the project sponsor, TIFIA credit assistance is estimated to generate up to $300 million in additional financial capacity while reducing the risk of scope reduction and service delays. The project is expected to create 49,000 new jobs, connect over 200,000 people to the major employment centers within the Puget Sound Region, reduce 10,000 vehicle hours and 230,000 vehicle miles traveled per day, reduce greenhouse gases by 22,000-29,000 metric tons, and provide significant seismic and fire safety features on the light rail line and along I-90.

FY 2016 Activity: The Department closed six projects totaling $6.8 billion in infrastructure investment in FY 2016. One example is the I-93 Improvement Project in New Hampshire.

The I-93 Improvement Project: In May 2016, the Department closed a $200 million loan for this highway project. This $784 million project that will reconstruct 19.8 miles of I-93 from Manchester to Salem, New Hampshire. The New Hampshire Department of Transportation applied for TIFIA loan at the rural interest rate, which was a new provision under MAP-21 allowing an interest rate equal to one-half of the Treasury rate. Because of the rural rate, the State will save nearly $250 million in resources that otherwise would go toward I-93 debt payments. The State plans to use the savings on maintenance projects for rural roads and reconstruction of rural and deficient bridges, which will include timely maintenance of 40% of the State roads and 30% of structurally deficient bridges across the State.

FY 2017 and FY2018 Activity: The Department has already closed five projects during the 2017 fiscal year, and is positioned to close additional projects before the end of the fiscal year. The Department has a robust and active pipeline of 18 projects from around the country in various stages of the review process. The Department has requested further information from and is actively reviewing these projects estimated to add $20 billion in infrastructure investment when constructed. Like the TIFIA portfolio itself, the pipeline of projects is a diverse mix of rural and urban, public private partnerships (P3) and public projects, and projects in States using TIFIA for the first time. An example of one of the projects in the pipeline is the City of Bellevue's BelRed Street Network Project.

The BelRed Street Network Project: The City of Bellevue has requested a TIFIA loan of approximately $100 million loan for a $323 million set of projects to add roadways, bike lanes, and sidewalks as part of a redevelopment of the BelRed neighborhood. The Project, along with the introduction of East Link light rail by Sound Transit, is intended to provide a catalyst for redevelopment of the BelRed neighborhood to be connected, multi-modal, pedestrian-friendly, and transit-oriented. The Project will deliver multi-modal mobility enhancements that support transit-oriented development, providing connectivity and accessibility for existing development and planned growth.

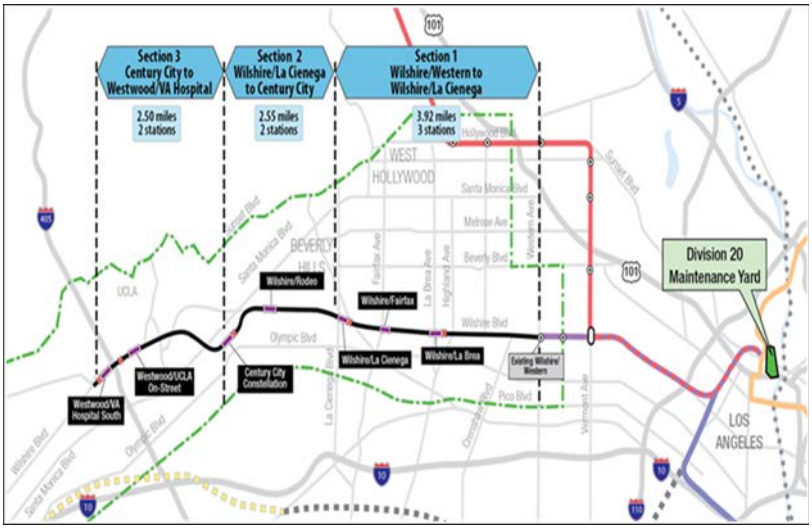
The TIFIA Program's success in delivering projects and the active pipeline of projects support this budget request of $285 million for FY 2018. Through TIFIA, the Department has helped advance important infrastructure projects around the country and this positive momentum will continue in FY 2018.

What Benefits Will Be Provided To The American Public Through This Request?

The TIFIA Program will accelerate delivery of significant transportation projects throughout the United States. By stimulating investment in the country's transportation infrastructure, the TIFIA program will improve the economy, create jobs, and improve access to opportunities.

Stimulating Significant Economic Benefits Including Job Creation: TIFIA credit assistance provides improved access to capital markets, flexible repayment terms, and more favorable interest rates than can be found in private capital markets for similar instruments. In this way, the TIFIA Program can help accelerate delivery of qualified projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Below is an example of a complex project that benefited greatly from TIFIA assistance and will in turn have a positive economic impact.

The Los Angeles County Metropolitan Transportation Authority's (LACMTA) Westside Subway: The TIFIA loan provides significant benefits to LACMTA and is a key financing tool for the Measure R Expenditure Plan. The interest rate for the loan is lower than rates for LACMTA's traditional debt. TIFIA secured loans can be issued at a subordinate lien level with lower debt service coverage ratios, allowing LACMTA to maximize its debt capacity. The flexible repayment terms of the TIFIA loan program are critical to LACMTA's transit capital program by allowing deferred payments until project completion and ascending debt service payment structures that leverage projected sales tax revenue growth. Overall, TIFIA loans for this and other LACMTA projects have helped accelerate infrastructure investment in the region. This investment has significant economic advantages, per LACMTA estimates, the Westside Subway Project is expected to create 25,330 jobs and produce an economic impact of more than $2 billion over the next 30 years.

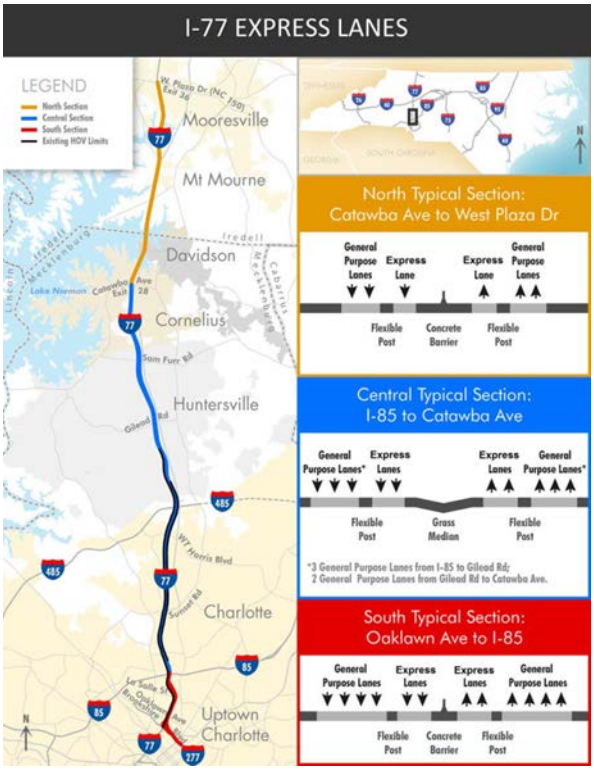


Encouraging New Revenue Streams: TIFIA was created because State and local governments often had difficulty financing projects with innovative revenue streams at reasonable rates due to the uncertainties associated with these non-traditional repayment sources. Tolls and other project-based revenues are difficult to predict, particularly for new facilities because it is hard to estimate how many transportation users will pay fees during the initial ramp-up years after construction. By supporting these projects, TIFIA facilitates an introduction of alternative revenue streams to surface transportation projects. One example is the SH288 Project in Houston, Texas. As a new toll facility with revenue uncertainties, the TIFIA loan was critical to helping fund the project that would have likely been delayed or deferred.

The SH288 Project: The Department closed on a $357 million loan during April 2016 to support the construction of four new toll lanes along 10 miles of the median of State Highway 288 within Harris County, Texas. The project will be constructed under a Design-Build-Finance-Operate-Maintain agreement between a private developer and the State of Texas. The TIFIA loan will leverage $375.3 million in total equity and $17.1 million in public funds to support the project's total cost of $1.06 billion. The project will connect with a similar toll lane expansion effort in Brazoria County immediately to the south. The managed lanes will reduce congestion,

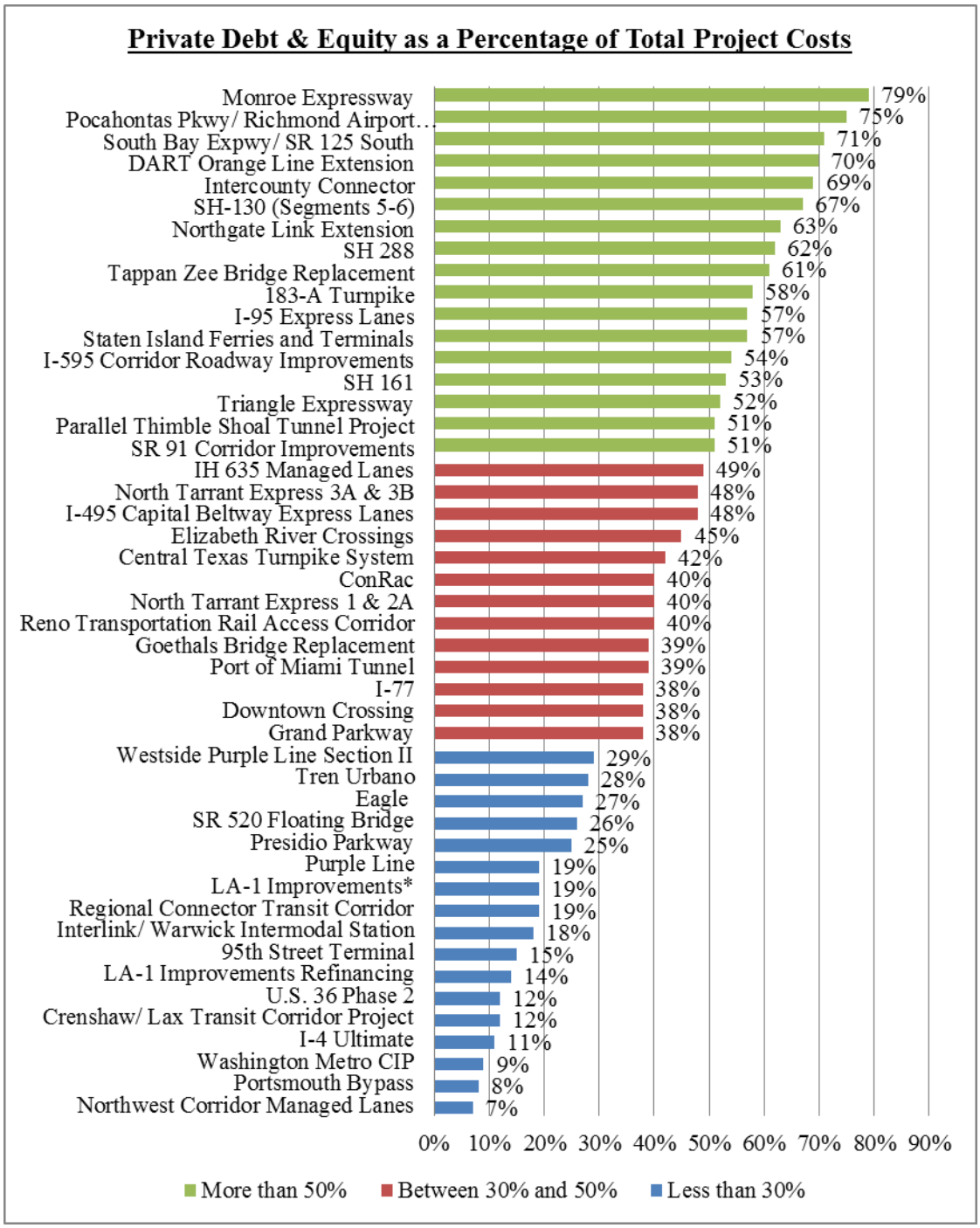
provide additional transportation choices, and improve mobility and connectivity within the Houston metro region.

In addition to stimulating new revenue streams, TIFIA credit assistance can help attract private debt and equity participation to transportation projects. TIFIA has been an integral part of public private partnerships in the United States, with almost a third of the TIFIA Program's portfolio funded as P3 projects. One such example is the I-77 HOT Lanes Project in Charlotte, North Carolina, which closed during 2015.



The I-77 HOT Lanes Project: TIFIA is providing $187 million in credit assistance to fund the $636 million project. This project will add 26 miles of variably-priced managed lanes along I-77 and I-277 in Charlotte, North Carolina, north through Mecklenburg and Iredell Counties. The project is expected to increase transportation options, reduce congestion, provide safety enhancements, and promote economic growth in the region. Through the use of TIFIA and utilizing the P3 delivery method, the North Carolina Department of Transportation estimates that it can save $50 million in total project costs, and complete the project faster than it would have under other delivery methods.

The I-77 HOT Lanes Project is just one of many examples of P3 projects. In total, there have been 21 projects financed with TIFIA that have advanced as P3s, and the private equity committed to these projects exceeds $4 billion. On the debt side, TIFIA has been combined with other debt sources including Private Activity Bonds (PABs), bank debt, and GARVEE Bonds, that total over $12 billion in financing for surface transportation. Currently, over a third of the entire portfolio has received a level of private participation in financing, as shown in the following chart.



Enhancing Economic Competitiveness: By facilitating projects that would have been delayed or deferred, the TIFIA Program will help modernize our transportation system, which will advance communities and help American businesses compete and grow in the global economy. Consistent with the FAST Act, the TIFIA Program will accelerate project delivery by stimulating new revenue streams for transportation projects and attracting private investment. Furthermore, TIFIA funding will leverage limited Federal funds, so that a relatively small Federal commitment will stimulate a large amount of State, local, and private investment.

Executive Summary
Administrative Expenses

What Is The Request And What Funds Are Currently Spent On The Program?
FHWA requests $442.7 million for FHWA General Operating Expenses (GOE). This is consistent with the administrative expenses funding level under the FAST Act.

What Is This Program And Why Is It Necessary?
This program provides essential resources to carry out the agency's mission. FHWA requires adequate administrative funding to maintain its leadership and oversight role for the Federal-aid Highway Program's new era of complexity, accountability, and transparency under the FAST Act. GOE funds salaries and benefits for approximately 2,100 employees, as well as rent, communications, utilities, contractual services, travel, supplies, and equipment to support the delivery of the Federal-aid Highway Program. The funding level requested for administrative expenses will support a $45.0 billion overall Federal highway program and amounts to just under 1 percent of the overall budget request for FHWA programs.

What Does This Funding Level Support?
This funding level supports the ability of FHWA to effectively deliver and manage the Federal-aid Highway Program. From FY 2013 to 2015, FHWA's GOE contract authority level decreased significantly, while compulsory costs, such as pay and benefits, rent, utilities, and Working Capital Fund (WCF), increased. The combination of these factors forced FHWA to institute significant cost savings measures that negatively impacted agency operations, including an agency-wide hiring freeze, reduced information technology (IT) support, cut funding for field and headquarters operations, and curtailed funding for many critical training programs. While FHWA has been able to partially restore some of these services, the agency has permanently reduced staffing twice in recent years—by approximately 100 positions in FY 2015, and another nearly 100 positions during FY 2017. The requested funding level will allow FHWA to effectively oversee the Federal-aid Program; however, even with the increased funding, the agency will continue to operate in a fiscally conservative manner.

What Benefits Will Be Provided To The American Public Through This Request?
The Federal-aid Highway Program requires an appropriately staffed workforce that is sufficiently supported and well-trained. FHWA's immediate response to the I-85 roadway collapse; our work with stakeholders on the Louisville–Southern Indiana Ohio River Bridges project, one of the largest transportation improvement projects in the United States; and innovations like High Friction Surface Treatment and slide-in bridge construction which have benefits such as improving safety and minimizing traffic disruptions, are just a few examples of how the agency is providing benefits to the American public. Without a well-sized and qualified staff capable of carrying out the Federal-aid highway program, the program would not be able to make roadways safer, maintain and improve road conditions, rehabilitate and repair structurally deficient bridges, accelerate project delivery, conduct and deploy innovative transportation research, and undertake many other functions critical to maintaining a safe and efficient transportation network.

Detailed Justification
Limitation on Administrative Expenses

What Is The Request And What Funds Are Currently Spent On The Program?

FY 2018 – Limitation on Administrative Expenses ($442.7 million)

($000)

Program Activity	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Difference from FY 2017
Federal-aid Highways				
Limitation on Administrative Expenses				
Limitation on Administrative Expenses [1/]	429,000	428,184	442,692	14,508
Total	**429,000**	**428,184**	**442,692**	**14,508**

1/ FY 2016 and FY 2017 includes FHWA General Operating Expenses (GOE) and transfers to the Appalachian Regional Commission (ARC) for administrative activities associated with the Appalachian development highway system. FY 2018 includes FHWA GOE. Other programs funded within administrative expenses (On-the-Job Training, Disadvantaged Business Enterprises, and Highway Use Tax Evasion Projects) are included in the Federal Allocation Programs justification.

What Is This Program And Why Is It Necessary?

The Limitation on Administrative Expenses funds salaries and benefits, travel, rent, communications, utilities, printing, contractual services, supplies and equipment. This account provides the resources necessary to maintain the Federal-aid oversight and administrative operations. Funding will support activities to meet FHWA goals and other Federal mandates.

Program Purpose

Administrative expenses fund the oversight and management of the Federal-aid Highway Program. This includes direct interaction in the field with State and local partners, as well as Federal agencies and Tribes. These administrative expenses provide critical on-the-ground technical assistance in areas such as bridge oversight and safety, accelerating project delivery through the Every Day Counts (EDC) program, expediting the environmental review and approval process, development and review of performance management metrics/standards and freight plans, and coordination with other Federal agencies. These funds also provide the means to approve project agreements, environmental actions, and State Transportation Improvement Plans (STIPs), and approve and process obligations and reimbursements, as well as ensure compliance with the Federal-aid Highway Program and proper use of Federal funds.

The majority of FHWA's employees are located in 52 Division offices – one in each State; Washington, DC; and Puerto Rico. The agency also has 3 Federal Lands Highway Program Field offices and a Resource Center, which provides technical assistance, training, and innovative technology deployment assistance for the Division offices, State departments of transportation, metropolitan planning organizations, and local agencies. In total, FHWA has approximately 1,250 field staff, comprising 60 percent of the GOE-funded workforce. Field staff work directly with State and local partners and other Federal agencies and Tribes to oversee the

Federal-aid program and assist these partners in advancing projects more quickly through innovations such as E-NEPA and accelerated project delivery tools.

FHWA's Headquarters program staff provides national leadership and works directly with division offices, States, and other partners to advance the Federal-aid Highway Program. These offices are responsible for innovations to accelerate project delivery and reduce environmental review time, instituting performance management standards and processes, oversight of bridge inspection, coordination among other Federal agencies, and providing critical technical assistance to division offices, States, and other partners. The program offices lead implementation of the various components of the FAST Act, especially in the areas of performance management, environmental review, and project/program innovation.

FHWA's Headquarters support offices provide agency-wide support for the Federal-aid Highway Program. These offices provide all legal, IT, policy, human resources, training, finance, budget, and acquisitions support for the entire agency. These offices play a key role in administering IT systems such as those used to manage highway funding or report highway data, providing critical technical assistance on reauthorization and other legislation, and establishing employee programs and training opportunities to maintain a knowledgeable workforce, among other essential responsibilities.

Funding Request

FHWA requests a $442.7 million Limitation on Administrative Expenses (LAE) for FHWA Federal-Aid General Operating Expenses (GOE).

The following table summarizes the requested FY 2018 obligation limitation changes from FY 2017 annualized Continuing Resolution (CR) levels.

Summary of Requested FY 2018 Funding Changes from FY 2017 Annualized CR Level	
GOE Activity	**Amount ($000)**
Adjustments to Base	
President's 2018 pay raise	4,373
Annualization of President's 2017 pay raise	1,603
GSA Rent	120
Working Capital Fund (WCF)	715
Inflation	618
Subtotal, adjustments to base	**7,429**
Program Increases/Decreases	
Conversion to the Department Procurement platform (DP2)	3,000
Replace Hosting Environment Equipment	2,300
Computer Refreshes	1,600
UPACS Modernization	1,000

Office Relocations and Reconfigurations	700
Replace Video Teleconference (VTC) Equipment	700
Refresh Field Network and Server Hardware	527
Expanded Supervisory and Leadership Training	300
Discipline Seminars	200
Adjustment to Appalachian Regional Commission (ARC)	-3,248
Subtotal, program increases/decreases	7,079
Total	**$14,508**

Of the increased funding requested, $7.4 million is for adjustments to the base for pay raises ($6.0 million), rent ($0.1 million), Working Capital Fund ($0.7 million), and inflation ($0.6 million).

The remaining increases are to allow FHWA to make investments in critical areas such as IT, training, and facilities. While FHWA has been able to partially restore services that had been cut under the decreased GOE levels through FY 2015, this request would allow FHWA to restore funding for recurring items such as computer equipment refreshes and key training initiatives while also making essential one-time IT investments. The other programmatic increase is for conversion to the new Department Procurement platform (DP2).

Following is a description of the request:

Conversion to DP2 ($3.0 million) — In 2018, FHWA will move to DP2, a comprehensive acquisition system that will allow FHWA to commit, track, manage, and report on its procurement actions. The system interfaces with Delphi, the Department's accounting system, and also with the Federal Procurement Data System, allowing for detailed obligation reporting on each award.

The Enterprise Service Center (ESC) will manage DP2 for DOT Operating Administrations and will provide application, hosting, IT security, system development, and help desk services:

Replace Aging Hosting Environment Equipment ($2.3 million) — Much of FHWA's hosting environment equipment, upon which virtually all FHWA applications and servers reside, is approaching the end of its useful life cycle. This requires FHWA to replace the equipment including the production and Disaster Recovery instances of the Storage Area Network, tape library for backups, and servers. Additionally, the current Disaster Recovery environment is built from old, repurposed equipment preventing it from operating at the same capacity level as the production environment. Keeping equipment current is a recommended security practice. Once this equipment is replaced, FHWA can move towards a refresh cycle that replaces 20 percent a year, putting all equipment on a 5-year refresh cycle for capital assets, which is in line with industry best practices and normal hardware lifecycles.

Align Computer Refreshes with Industry Standards ($1.6 million) — FHWA computers currently are refreshed approximately every 5 years, when their warranty expires. Due to prior

years' GOE funding shortages, FHWA still has some computers that are out of warranty. This amount would allow FHWA to catch up and move to a 4-year refresh cycle, which is in line with industry standards and will align with user requirements.

UPACS Modernization ($1.0 million) — The User Profile and Access Control System (UPACS) manages user authentication and associated access rights for access to all FHWA Information Systems. As such, the UPACS system maintenance is critical to FHWA's compliance with Federal and DOT cybersecurity mandates, and security for all FHWA information systems.

In 2012, the UPACS system was upgraded to comply with HSPD-12 Personal Identity Verification (PIV) requirements; however, the code base for the system was not updated and is aging. A modernization effort is needed to upgrade the system and ensure it is maintained in a good state of repair. The modernization effort will review the code base and the system architecture to maximize system compliance with all security mandates and best practices, as well as optimizing system performance to meet the demands of FHWA's mission support systems.

Office Relocations and Reconfigurations ($0.7 million) — This request includes two components: required office relocations after lease expirations and construction costs for office reconfigurations. Three FHWA Division Offices will move to available space in Federal buildings upon the coming expiration of their leases, as required by the General Services Administration (GSA). This request also covers office reconfiguration construction costs that would reduce FHWA's facilities footprint at its Resource Centers as employees at these locations increasingly work remotely; this will allow FHWA to release the greatest amount of space possible back to GSA, resulting in an annual cost savings of over $175,000.

Replace Video Teleconference (VTC) Equipment ($0.7 million) — The majority of FHWA's VTC endpoints are past the end of their lifecycle (8-9 years old) and need to be replaced. FHWA began the replacement of these endpoints in FY 2016, replacing 60 of the units across the agency. This request will allow FHWA to refresh the remaining units and will help to control FHWA's travel costs via the use of VTC.

Refresh Field Network and Server Hardware ($0.5 million) —A significant amount of field office IT equipment, including routers, servers and switches, is approaching the end of its useful lifecycle by FY 2018 and should be replaced. Keeping equipment current is a recommended security practice. Once this equipment is replaced, FHWA can move towards a refresh cycle that replaces 20 percent a year, putting all equipment on a 5-year refresh cycle for capital assets, which is in line with industry best practices and normal hardware lifecycles.

Expanded Supervisory and Leadership Training ($0.3 million) — This request would support key supervisory and leadership training. For instance, approximately 150 supervisory employees have not completed FHWA's Critical Human Resource Skills training in the last 3 years. This request would be used to develop a blended learning approach combining Critical Human Resources Skills and other training for new supervisors into one comprehensive program. FHWA's Leadership Development Academy (LDA) would expand the number of

classes to accommodate more students throughout the year. The LDA is FHWA's primary program for developing leaders within the agency—a critical element to ensure that the agency has well-trained leadership to manage and oversee the Federal-aid program. It would also allow FHWA to increase the authorized user limits for training webinars from 100 to 500 employees, helping to accommodate all the employees who would benefit from such training.

Discipline Seminars ($0.2 million) — FHWA reduced discipline seminars in FY 2016 and eliminated them in FY 2017 due to funding constraints. This request will allow FHWA to reinstitute this critical learning and development opportunity in FY 2018 by holding three seminars. The primary focus of each seminar is to develop technical skills, strengthen mission critical proficiencies as well as provide networking opportunities for knowledge sharing within each respective discipline. Discipline champions, agency experts and other discipline members also have the opportunity to develop or refine leadership skills during the planning and implementation of the seminars thereby supporting discipline succession planning. The National Discipline Leadership and Development Seminars are an integral part of the Discipline Support System to promote FHWA's overall knowledge management and development of technical expertise and leadership development. These seminars not only provide a platform to build professional competencies and support learning, but to also make available the tools and resources necessary to facilitate knowledge transfer and encourage professional networking.

What Does This Funding Level Support?

Funding at the requested, authorized amount will enable FHWA to operate at normal levels and effectively oversee the Federal-aid Highway Program. In addition, this level will allow FHWA to make critical investments in IT and other areas. This allows FHWA to maintain sufficient but reduced staff levels (approximately 200 positions less than levels prior to FY 2015); provide required IT support such as more timely computer refreshes and replacing aging server, network, and VTC hardware; conduct important training for supervisors and for FHWA's various disciplines; and pay for required office relocations and other necessary facilities costs. The requested funding level will allow FHWA to successfully administer the program.

It is also important to note the following factors that affect the administration of the Federal-aid program:

Continued program consolidation has not reduced staffing requirements.

The FAST Act effectively continued the consolidated program structure from MAP-21; however, nearly all eligibilities and activities from previous authorizations continue. FHWA has been and remains organized around core areas of expertise such as infrastructure, safety, operations, environmental assessments, and project planning. Those core areas of expertise remain critical to delivering the consolidated program structure under the FAST Act and the budget request.

Federal-aid program continues to grow in scope and complexity.

The FAST Act continued and expanded many of the management and oversight responsibilities under MAP-21. Further, the FAST Act requires numerous rulemakings and studies that, although unfunded, will require additional resources.

While increased project management, accelerated project delivery, and shortening environmental reviews and approvals are all worthy initiatives, they require both human and financial resources to achieve. FHWA fully supports these initiatives, and will continue these efforts under the FAST Act and in our FY 2018 budget proposal— we simply want to ensure that we have sufficient resources to effectively carry out these tasks.

Also, the FAST Act established both a freight formula and freight discretionary program, along with programmatic requirements such as the designation of a freight network, oversight of State freight plans, and in the case of the discretionary program, a role in project review and selection. While FHWA strongly supports these measures, and believes that these programs will improve the movement of goods throughout the country, these new programs will increase the FHWA's administrative responsibilities.

No request for Appalachian Regional Commission (ARC) administrative funding.

While administrative funding for ARC has been included within FHWA's overall administrative request in the past, the President's Budget Blueprint proposes to eliminate funding for ARC. FHWA employees that currently work on the Appalachian Development Highway System (ADHS) will be absorbed into FHWA's GOE and will continue to support the ADHS program as needed. As the ADHS is completed in the coming years, those FHWA staff will gradually return to support other FHWA programs as warranted by the workload related to the ADHS.

What Benefits Will Be Provided To The American Public Through This Request?

FHWA and our administrative funding are integral to the effective delivery of the Federal-aid Highway Program. In support of the program's delivery, we:

- Ensure that $45.0 billion of annual Federal funding is delivered in accordance with Federal laws and regulations and protected from fraud, waste and abuse.
- Protect the safety of the traveling public through highway and bridge design and operations standards and guidance as well as by establishing requirements for and monitoring bridge inspection practice.
- Help communities recover from disasters through administration of the emergency relief program and by providing internationally recognized technical expertise. For instance, when a section of I-85 recently collapsed, FHWA provided immediate assistance, including $10 million in "Quick Release" Emergency Relief Program funds the next day. This support allowed emergency repairs to be completed within weeks, and full repairs to be completed by June 2017, less than three months after the collapse.

- Shorten project delivery through assistance to State and local governments in the planning, design and construction process, including meeting NEPA requirements and coordinating with other federal agencies to obtain the required permits.
- Design and manage the construction for projects on federal lands, including National Parks and forest highways. We provide public access to America's treasures.
- Conduct research, advance technologies and practices, deliver training and provide technical assistance to States, local and tribal governments. These new technologies save taxpayer time, money and lives

With qualified staff and necessary contracts to provide oversight, FHWA will be able to make roadways safer, maintain and improve road conditions, rehabilitate and repair structurally deficient bridges, improve access to and roads within Federal and Tribal lands, conduct and deploy innovative transportation research, and many other functions critical to maintaining an efficient and safe transportation network.

In recent years, FHWA has increased its focus on innovation through the EDC initiative, which Congress codified in the FAST Act, demonstrating the significance and effectiveness of the program. EDC has led to significant improvements in shortening project delivery and accelerating technology and innovation deployment. For example, FHWA has worked closely with State partners on the use of programmatic agreements, which are documents that establish a streamlined process for handling routine environmental requirements for commonly encountered project types. All 50 states now have a programmatic agreement in place and 37 have two or more, with a wide range of benefits reported, including cost savings, accelerated project delivery, and increased certainty about the project development process and project schedule.

EDC initiatives have also had a significant impact on safety and reduced construction-related traffic delays. For example, High Friction Surface Treatment (HFST) technology can dramatically and immediately reduce crashes and the related injuries and fatalities. HFSTs are site-specific application of very high-quality, durable aggregates using a polymer binder that restores and maintains pavement friction where the need for a safer pavement surface is the greatest. Maintaining the appropriate amount of pavement friction is critical for safe driving.

Also, EDC supported the development of Slide-in Bridge Construction (SIBC), with benefits that include reduced construction-related traffic delays and lower construction costs. SIBC accelerates bridge construction whereby a new bridge is built next to an existing bridge out of the way of traffic. Once ready, the roadway is closed for a short period of time, the old bridge is quickly removed, and the new bridge is slid into place. For instance, the New York State DOT replaced two bridges on I-84 during a 20-hour time period over a weekend using the SIBC method; this resulted in estimated savings in construction costs and user delay costs of 22 percent of the $10.2 million construction cost for the project.

FHWA works closely with its State, local, Federal and Tribal partners to improve project delivery. For example, the Louisville–Southern Indiana Ohio River Bridges (LSIORB) project involved the construction of two new toll bridges over the Ohio River to address the long-term cross-river transportation needs in the Louisville-Southern Indiana region. Public involvement

and community considerations have been a critical component throughout the project development process, with stakeholder, historic advisory team and public meetings highlighting a truly regional initiative aimed at meeting the public's needs and wishes. The culmination of more than 40 years of planning, the $2.6 billion LSIORB project is the largest bi-state transportation project ever undertaken by the states of Kentucky and Indiana, and one of the largest transportation improvement projects in the United States—named by Congress as one of 13 projects of national importance.

These are just a few examples of FHWA employing innovation to assist its partners in completing transportation projects more safely, quickly, and efficiently, which results in fewer fatalities and accidents, reduced congestion and commute times, and accelerates better movement of goods and services throughout the nation.

By providing funding at the requested level, FHWA can continue to provide these valuable services, enhancing the transportation experience for all Americans.

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DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
HIGHWAY INFRASTRUCTURE INVESTMENT, RECOVERY ACT

BACKGROUND

Enacted on February 17, 2009, the American Recovery and Reinvestment Act of 2009 (Recovery Act) provided $27.5 billion from the General Fund to the Federal Highway Administration (FHWA), of which $26.6 billion was apportioned to States based on formulas described in the Recovery Act and $0.9 billion was allocated to programs identified in the Recovery Act, including the Indian Reservation Roads Program, Park Roads and Parkway Program, Forest Highway Program, Refuge Roads Program, Disadvantaged Business Enterprise Bonding Assistance, Territorial Highway Program, Puerto Rico Highway Program, and the Ferry Boat Discretionary Program. Administrative oversight funds were available through September 30, 2012 and all other funds were available through September 30, 2010.

The FHWA Recovery Act funds have been used to invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits to the Nation. The Recovery Act funds augmented existing investments authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005: A Legacy for Users (SAFETEA-LU), enabling States, regional, and local governments to accelerate to completion a number of highway infrastructure projects planned or underway. Since the Recovery Act was enacted in February 2009, more than 42,000 miles of pavement across the United States have been improved. As of September 30, 2015, States have expended 100% of Recovery Act obligations. As of September 30, 2015 Recovery Act funds are cancelled and are no longer available for expenditure.

BUDGETARY RESOURCES

No new budget authority is requested for FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
HIGHWAY INFRASTRUCTURE INVESTMENT, RECOVERY ACT

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-0504-01-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
	Budgetary Resources:			
	Budget authority			
	Appropriations, discretionary:	.....	.....	.....
1160	Appropriation, discretionary (total)	.....	.....	.....
	Spending authority from offsetting collections, discretionary:	.....	.....	.....
1750	Spending authority from offsetting collections, disc (total)	.....	.....	.....
Change in obligated balance				
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	.....	.....	.....
3001	Adjustment to unpaid obligations, brought forward, Oct 1	.....	.....	.....
3011	Obligations incurred, expired accounts	.....	.....	.....
3020	Outlays (gross)	.....	.....	.....
3041	Recoveries of prior year unpaid obligations, expired	.....	.....	.....
3050	Unpaid obligations, end of year	.....	.....	.....
	Uncollected payments:			
3060	Uncollected payments, Federal sources, brought forward, Oct 1	.....	.....	.....
3061	Adjustments to uncollected pymts, Fed sources, brought forward, Oct 1	.....	.....	
3090	Uncollected payments, Federal sources, end of year	.....	.....	.....
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	.....	.....	.....
3200	Obligated balance, end of year	.....	.....	.....
Budget authority and outlays, net				
	Discretionary:			
	Outlays, gross:			
4011	Outlays from discretionary balances	.....	.....	.....
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	.....	.....	.....
	Additional offsets against gross budget authority only:			
4052	Offsetting collections credited to expiring accounts	.....	.....	.....
4070	Budget authority, net (discretionary)	.....	.....	.....
4080	Outlays, net (discretionary)	.....	.....	.....
4190	Outlays, net (total)	.....	.....	.....

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EMERGENCY RELIEF

BACKGROUND

The Emergency Relief program receives $100 million annually in mandatory funds in the Federal-aid Highways account. The Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005: A Legacy for Users (SAFETEA-LU); the Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted July 6, 2012, and the Fixing America's Surface Transportation (FAST) Act, enacted December 4, 2015, authorized the program to receive additional General Fund discretionary funding as needed.

In FY 2012, $1,662 million was enacted to remain available until expended, in FY 2013, $2,022 million was enacted to remain available until expended, and in FY 2017, $1,532 million was enacted to remain available until expended, all for necessary expenses resulting from major disasters declared pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.).

BUDGETARY RESOURCES

No further appropriations are requested for this account in FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EMERGENCY RELIEF

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-0500-0		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
New obligations:				
Obligations by program by activity:				
0001	Direct program activity	360	444	473
0900	Total new obligations (object class 41.0)	360	444	473
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	642	386	946
1021	Recoveries of prior year unpaid obligations	104	……	……
1050	Unobligated balance (total)	746	386	946
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	……	1,004	……
1130	Appropriations permanently reduced	……		
1160	Appropriation, discretionary (total)	……	1,004	……
1930	Total budgetary resources available	746	1,390	946
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	386	946	473
Change in obligated balances				
Obligated balance, start of year (net):				
3000	Unpaid obligations, brought forward, Oct 1	604	534	511
3010	Obligations incurred, unexpired accounts	360	444	473
3020	Outlays (gross)	-326	-467	-445
3040	Recoveries of prior year unpaid obligations, unexpired	-104	……	……
3050	Unpaid obligations, end of year	534	511	539
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	604	534	511
3200	Obligated balance, end of year	534	511	539
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	……	1,004	……
4010	Outlays from new discretionary authority	……	68	……
4011	Outlays from discretionary balances	326	399	445
4080	Outlays, net (discretionary)	326	467	445
4180	Budget authority, net (total)	……	1,004	……
4190	Outlays, net (total)	326	467	445

* Public Law 115-31 provided $528 million for the Emergency Relief Program in FY 2017. This amount is not reflected in the above schedule since the law was enacted after the MAX data-entry database was locked.

OBJECT CLASSIFICATION
In millions of dollars

Identification code: 69-0500-0		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct Obligations:				
41.0	Direct obligations: Emergency Relief Backlog	360	444	473

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

BACKGROUND

Funding for this program is used for the necessary expenses relating to construction of, and improvements to, corridors of the Appalachian Development Highway System as distributed to the following states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia.

BUDGETARY RESOURCES

No new budget authority is requested for FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-0640-0-1-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
New obligations:				
Obligations by program by activity:				
0001	Appalachian Development Highway System	4	3	2
0900	Total new obligations (object class 41.0)	4	3	2
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	49	46	43
1021	Recoveries of prior year unpaid obligations	1	……	……
1050	Unobligated balance (total)	50	46	43
Budget authority:				
1160	Appropriation, discretionary (total)	……	……	……
1930	Total budgetary resources available	50	46	43
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	46	43	41
Change in obligated balances				
Obligated balance, start of year (net):				
3000	Unpaid obligations, brought forward, Oct 1	12	10	8
3010	Obligations incurred, unexpired accounts	4	3	2
3020	Outlays (gross)	-5	-5	-4
3040	Recoveries of prior year unpaid obligations, unexpired	-1	……	……
3050	Unpaid obligations, end of year	10	8	6
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	12	10	8
3200	Obligated balance, end of year	10	8	6
Budget authority and outlays, net:				
Discretionary:				
4011	Outlays from discretionary balances	5	5	4
4080	Outlays, net (discretionary)	5	5	4
4180	Budget authority, net (total)	……	……	……
4190	Outlays, net (total)	5	5	4

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

OBJECT CLASSIFICATION
In millions of dollars

Identification code: 69-0640-0-1-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct Obligations:				
41.0	Direct obligations: Grants, subsidies, and contributions	4	3	2

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-8072-0-1-401	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	.....	.....	.....
1029 Other balances withdrawn (-)	.....	.....	.....
1050 Unobligated balance (total)	.....	.....	.....
Budget authority:			
Spending authority from offsetting collections, discretionary:			
1750 Spending auth from offsetting collections, disc (total)	.....	.....	.....
1930 Total budgetary resources available	.....	.....	.....
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	.....	.....	.....
Change in obligated balances			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	.....	.....	.....
3020 Outlays (gross)	.....	.....	.....
3050 Unpaid obligations, end of year	.....	.....	.....
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	.....	.....	.....
3200 Obligated balance, end of year	.....	.....	.....
Budget authority and outlays, net:			
Discretionary:			
Outlays, gross:			
4011 Outlays from discretionary balances	.....	.....	.....
4080 Outlays, net (discretionary)	.....	.....	.....
4180 Budget authority, net (total)	.....	.....	.....
4190 Outlays, net (total)	.....	.....	.....

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DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MISCELLANEOUS APPROPRIATIONS

BACKGROUND

This consolidated schedule shows the obligation and outlay of amounts appropriated from the General Fund for miscellaneous programs. The schedule reflects a Transportation Infrastructure Finance and Innovation (TIFIA) Act program upward re-estimate and interest on the re-estimate of $216 million for FY 2016 and $2 million for FY 2017. The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted July 6, 2012, and the Fixing America's Surface Transportation (FAST) Act, enacted December 4, 2015, included the TIFIA Act program upward subsidy re-estimate with this account.

BUDGETARY RESOURCES

No further discretionary appropriations are requested for FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MISCELLANEOUS APPROPRIATIONS

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-9911-01-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
New obligations:				
	Obligations by program by activity:			
0002	Surface Transportation Priorities	22	38	38
0003	Miscellaneous highway projects	10	14	14
0083	Interest on TIFIA Upward Reestimate	159	216	.....
0900	Total new obligation (object class 41.0)	191	268	52
Budgetary resources:				
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	189	171	119
1010	Unobligated balance transferred to other accounts [69-9911]	.....	.....	.....
1011	Unobligated balance transferred from other accounts [69-9911]	.....	.....	.....
1021	Recoveries of prior year unpaid obligations	14	.....	.....
1050	Unobligated balance (total)	203	171	119
Budget authority:				
	Appropriations, discretionary:			
1160	Appropriation (total discretionary)	.....	.....	.....
	Appropriations, mandatory:			
1200	Appropriation	159	216	.....
1260	Appropriations, mandatory (total)	159	216	.....
1900	Budget authority (total)	159	216	.....
1930	Total budgetary resources available	362	387	119
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	171	119	67
Change in obligated balance:				
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	99	71	77
3010	Obligations incurred, unexpired accounts	191	268	52
3020	Outlays (gross)	-205	-262	-51
3040	Recoveries of prior year obligations, unexpired	-14	.....	.....
3050	Unpaid obligations, end of year	71	77	78
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	99	71	77
3200	Obligated balance, end of year	71	77	78
Budget authority and outlays, net:				
	Discretionary:			
	Outlays, gross:			
4011	Outlays from discretionary balances	46	46	51
	Offsetting collections (collected) from:			
4033	Non-Federal sources (-)	.....		
4080	Outlays, net (discretionary)	46	46	51
	Mandatory:			
4090	Budget authority, gross	159	216	.....
	Outlays, gross:			
4100	Outlays from new mandatory authority	159	216	.....
4160	Budget authority, net (mandatory)	159	216	.....
4170	Outlays, net (mandatory)	159	216	.....
4180	Budget authority, net (total)	159	216	.....
4190	Outlays, net (total)	205	262	51

OBJECT CLASSIFICATION
In millions of dollars

Identification code: 69-9911-01-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct obligations:				
41.0	Direct obligations: grants, subsidies, and contributions	191	268	52

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MISCELLANEOUS HIGHWAY TRUST FUNDS

BACKGROUND

This account contains miscellaneous appropriations from the Highway Trust Fund. Obligations and outlays result from prior year appropriations.

BUDGETARY RESOURCES

No new budget authority is requested for FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MISCELLANEOUS HIGHWAY TRUST FUNDS

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-9972-0-7-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
New obligations:				
Obligations by program activity:				
0027	Miscellaneous highway projects	6	23	19
0900	Total new obligations (object class 41.0)	6	23	19
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	75	77	54
1021	Recoveries of prior year unpaid obligations	2	.....	.....
1033	Recoveries of prior year paid obligations	6	.....	.....
1050	Unobligated balance (total)	83	77	54
Budget authority:				
Appropriations, discretionary:				
1160	Appropriations, discretionary (total)	.....	.....	.....
1700	Spending authority form offsetting collections, disc (total)	.....		
1930	Total budgetary resources available	83	77	54
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	77	54	35
Change in obligated balances				
Unpaid obligations				
3000	Unpaid obligations, brought forward, Oct 1	35	33	36
3010	Obligations incurred, unexpired accounts	6	23	19
3020	Outlays (gross)	-6	-20	-22
3040	Recoveries of prior year unpaid obligations, unexpired	-2	.....	.....
3050	Unpaid obligations, end of year	33	36	33
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	35	33	36
3200	Obligated balance, end of year	33	36	33
Budget authority and outlays net:				
Discretionary:				
4011	Outlays from discretionary balances	6	20	22
4033	Offsetting collections from non-Federal sources	-6	.....	.....
4080	Outlays, net (discretionary)	.....	20	22
4180	Budget authority, net (total)	.....	.....	.....
4190	Outlays, net (total)	.....	20	22

OBJECT CLASSIFICATION
In millions of dollars

Identification code: 69-9972-0-7-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct Obligations:				
41.0	Direct obligations: Grants, subsidies, and contributions	6	23	19

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MISCELLANEOUS TRUST FUNDS

BACKGROUND

Funds received by this account come from entities (governmental and non-governmental) outside of FHWA. FHWA holds these funds in trust until they outlay. The following programs are included in this fund:

- Advances from state cooperating agencies and foreign governments – Contributions are received from other entities in connection with cooperative engineering, survey, maintenance, and construction projects.

- Advances from foreign governments for technical assistance – FHWA provides technical assistance and acts as agent for the purchase of equipment and materials for carrying out highway programs in foreign countries.

- Contributions for highway research programs – Contributions are received from various sources in support of FHWA transportation research programs. The funds are used primarily in support of pooled-funds projects.

BUDGETARY RESOURCES

The budget estimates that $36 million of new authority will be available from non-FHWA sources in FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MISCELLANEOUS TRUST FUNDS

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-9971-0-7-999		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
New obligations:				
	Obligations by program by activity:			
0001	Advances from State cooperating agencies 69-X-8054	25	51	51
0002	Cooperative work, international highway transportation 69-X-8371	1	2	2
900	Total new obligations	26	53	53
Budgetary resources:				
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	41	85	68
1021	Recoveries of prior year unpaid obligations	4	……	……
1050	Unobligated balance (total)	45	85	68
Budget authority:				
	Appropriations, mandatory:			
1201	Appropriation (trust fund)	66	36	36
1260	Appropriations, mandatory (total)	66	36	36
1900	Budget authority (total)	66	36	36
1930	Total budgetary resources available	111	121	104
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	85	68	51
Change in obligated balance:				
	Obligated balance, start of year (net):			
30000	Unpaid obligations, brought forward, Oct 1	20	28	25
3010	Obligations incurred, unexpired accounts	26	53	53
3020	Outlays (gross)	-14	-56	-61
3040	Recoveries of prior year unpaid obligations, unexpired	-4	……	……
3050	Unpaid obligations, end of year	28	25	17
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	20	28	25
3200	Obligated balance, end of year	28	25	17
Budget authority and outlays, net:				
	Mandatory:			
4090	Budget authority, gross	66	36	36
	Outlays (gross)			
4100	Outlays form new mandatory authority	10	29	29
4101	Outlays from mandatory balances	4	27	32
4110	Outlays, gross (total)	14	56	61
4160	Budget authority, net (mandatory)	66	36	36
4170	Outlays, net (mandatory)	14	56	61
4180	Budget authority, net (total)	66	36	36
4190	Outlays, net (total)	14	56	61

OBJECT CLASSIFICATION
In millions of dollars

Identification code: 69-9971-0-7-999		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct obligations:				
	Personnel compensation:			
25.1	Advisory and assistance services	1	2	2
25.2	Other services from non-Federal sources	19	40	40
25.3	Other goods and services from Federal sources	5	10	10
99.0	Subtotal, obligations	25	52	52
99.5	Below reporting threshold	1	1	1
99.9	Total new obligations	26	53	53

EMPLOYMENT SUMMARY

Identification code: 69-9971-0-7-999		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
1001	Direct civilian full-time equivalent employment	5	5	5

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT
FINANCING ACCOUNTS

BACKGROUND

Federal-aid Highways

As required by the Federal Credit Reform Act of 1990, this non-budgetary account records cash flows to and from the Government resulting from direct loans made under the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program. The amounts in this account are a means of financing and are not included in the budget totals.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005: A Legacy for Users (SAFETEA-LU); the Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted July 5, 2012; and the Fixing America's Surface Transportation (FAST) Act, enacted December 4, 2015, have provided contract authority for the TIFIA Program to assist in the funding of nationally or regionally significant transportation projects. The subsidy costs and administrative expenses associated with this program are included in the Federal-aid Highway schedules.

National Infrastructure Investment

The Office of the Secretary of Transportation (OST) received appropriations totaling $1,127 million for TIGER Discretionary Grants as part of the 2010 and 2011 Department of Transportation (DOT) Appropriations Acts. The appropriations authorized DOT to pay subsidy and administrative costs, not to exceed $300 million, of projects eligible for Federal credit assistance under Chapter 6 of Title 23 United States Code. In 2012, $45 million was provided for TIGER discretionary grants as part of the 2012 DOT Appropriation Act to pay subsidy and administrative costs. OST has delegated the authority to negotiate and administer Transportation Infrastructure Finance Innovation Act of 1998 loans under this program to the Federal Highway Administration.

American Recovery and Reinvestment Act of 2009

OST received a FY 2009 appropriation of $1.5 billion into its Supplemental Discretionary Grants for a National Surface Transportation System as part of the American Recovery and Reinvestment Act of 2009 (ARRA). The ARRA appropriation authorized the DOT to pay subsidy and administrative costs not to exceed $200 million, of projects eligible for Federal credit assistance under chapter 6 of title 23, United States Code. The Office of the Secretary of Transportation (OST) has delegated the authority to negotiate and administer TIFIA loans under this program to the FHWA.

BUDGETARY RESOURCES

No further amounts are requested for FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
FINANCING ACCOUNT - DIRECT LOAN

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-4123-0-3-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Obligations by program activity:				
	Credit program obligations:			
0710	Direct loan obligations	2,180	3,982	3,736
0713	Payment of interest to Treasury	299	469	609
0740	Negative subsidy obligations	.....	.....	.....
0742	Downward reestimate paid to receipt account	190	81	.....
0743	Interest on downward reestimate	16	25	.....
0900	Total new obligations	2,685	4,557	4,345
Budgetary Resources:				
1000	Unobligated balance brought forward , Oct 1	1	4	91
	Financing authority:			
	Borrowing authority, mandatory:			
1021	Recoveries of prior year unpaid obligations	.....	.....	.....
1021	Authority withdrawn	.....	.....	.....
1050	Unobligated balance (total)	1	4	91
1400	Borrowing authority	2,463	3,999	3,821
1420	Borrowing authority permanently reduced			
1440	Borrowing authority, mandatory (total)	2,463	3,999	3,821
	Spending authority from offsetting collections, mandatory:			
1800	Collected	690	875	521
1801	Change in uncollected payments, Federal sources	-20	-25	-30
1825	Spending Authority from offsetting collections to repay debt	-445	-205	-57
1850	Spending authority from offsetting collections, mandatory (total)	225	645	434
1900	Financing authority (total)	2,688	4,644	4,255
1930	Total budgetary resources available	2,689	4,648	4,346
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	4	91	1
Change in obligated balances				
	Unpaid obligations;			
3000	Unpaid obligations, brought forward, Oct 1	11,165	11,661	9,028
3010	Obligations incurred, unexpired accounts	2,685	4,557	4,345
3020	Financing disbursements (gross)	-2,189	-7,190	-3,188
3050	Unpaid Obligations, end of year	11,661	9,028	10,185
	Uncollected payments:			
3060	Uncollected pymts, Fed sources, brought forward, Oct 1	-758	-738	-713
3070	Change in uncollected pymts, Fed sources, unexpired	20	25	30
3090	Uncollected pymts, Fed sources, end of year	-738	-713	-683
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	10,407	10,923	8,315
3200	Obligated balance, end of year	10,923	8,315	9,502
Financing authority and disbursements, net:				
	Mandatory:			
4090	Financing authority, gross	2,688	4,644	4,255
4110	Financing disbursements, gross	2,189	7,190	3,188
	Offsets against gross financing authority and disbursements:			
	Offsetting collections (collected) from:			
4120.01	Federal sources: Subsidy from program account	-128	-508	-218
4120.02	Federal sources: Upward Reestimate	-149	-2	.....
4120.03	Federal sources: Interest on upward reestimate	-67	.....	.....
4122.01	Interest on uninvested funds	-31	-55	-55
4123.01	Non-Federal Sources - Interest payments	-93	-105	-204
4123.02	Non-Federal Sources - Principal payments	-222	-205	-44
4130	Offsets against gross financing authority and disbursements (total)	-690	-875	-521
	Additional offsets against financing authority only (total):			
4140	Change in uncollected payments, Federal Sources, unexpired	20	25	30
4160	Financing authority, net (mandatory)	2,018	3,794	3,764
4170	Financing disbursements, net (mandatory)	1,499	6,315	2,667
4180	Financing authority, net (total)	2,018	3,794	3,764
4190	Financing disbursements, net (total)	1,499	6,315	2,667

STATUS OF DIRECT LOANS
In millions of dollars

Identification code: 69-4123-0-3-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Position with respect to appropriations act limitation on obligations:				
1111	Direct loan obligations from current-year authority	2,180	3,982	3,736
1150	Total direct loan obligations	2,180	3,982	3,736
	Cumulative balance of direct loans outstanding:			
1210	Outstanding, start of year	10,330	12,742	19,840
1231	Disbursement: Direct loan disbursements	2,189	6,615	2,564
1251	Repayments: Repayments and Prepayments	-222	-205	-44
1261	Adjustments: Capitalized interest	445	688	823
1290	Outstanding, end of year	12,742	19,840	23,183

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
FINANCING ACCOUNT - DIRECT LOAN

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-4347-0-3-401	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Obligations by program activity:			
Credit program obligations:			
0713 Payment of interest to Treasury	19	20	21
0742 Downward reestimate paid to receipt account	1	3	.....
0743 Interest on downward reestimate	1	1	.....
0900 Total new obligations	21	24	21
Budgetary resources:			
1400 Borrowing authority	21	24	21
1440 Borrowing authority, mandatory (total)	21	24	21
Spending authority from offsetting collections, mandatory:			
Financing authority:			
Spending authority from offsetting collections, mandatory:			
1800 Collected	.....	.....	.....
1801 Change in uncollected payments, Federal sources	.....	.....	.....
1850 Spending authority from offsetting collections, mandatory (total)	.....	.....	.....
1900 Financing authority (total)	21	24	21
1930 Total budgetary resources available	21	24	21
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	.....	.....	4
3010 Obligations incurred, unexpired accounts	21	24	21
3020 Financing disbursements (gross)	-21	-20	-1
3050 Unpaid obligations, end of year	.....	4	24
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	.....	.....	.....
3070 Change in uncollected pymts, Fed sources, unexpired	.....	.....	.....
3090 Uncollected pymts, Fed sources, end of year	.....	.....	.....
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	.....	.....	4
3200 Obligated balance, end of year	.....	4	24
Financing authority and disbursements, net:			
Mandatory:			
4090 Financing authority, gross	21	24	21
Financing disbursements:			
4110 Financing disbursements, gross	21	20	1
Offsets against gross financing authority and disbursements:			
Offsetting collections (collected) from:			
4120 Federal sources	.....	.....	.....
Additional offsets against financing authority only (total):			
4140 Change in uncollected pymts, Fed sources, unexpired	.....	.....	.....
4160 Financing authority, net (mandatory)	21	24	21
4170 Financing disbursements, net (mandatory)	21	20	1
4180 Financing authority, net (total)	21	24	21
4190 Financing disbursements, net (total)	21	20	1

STATUS OF DIRECT LOANS
In millions of dollars

Identification code: 69-4347-0-3-401	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Cumulative balance of direct loans outstanding:			
1210 Outstanding, start of year	509	531	552
1231 Disbursement: Direct loan disbursements	.....	.....	.....
1261 Adjustments: Capitalized interest	22	21	1
1290 Outstanding, end of year	531	552	553

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
FINANCING ACCOUNT - DIRECT LOAN

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-4348-0-3-401	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Obligations by program activity:			
Credit program obligations:			
0713 Payment of interest to Treasury	24	35	36
0742 Downward reestimates paid to receipt accounts	.....	12	.....
0743 Interest on downward reestimates	.....	5	.....
0900 Total new obligations	24	52	36
Budgetary resources:			
1000 Unobligated balance brought forward, Oct 1	.....	.....	.....
Financing authority:			
Borrowing authority, mandatory:			
1400 Borrowing authority	18	42	30
1440 Borrowing authority, mandatory (total)	18	42	30
Spending authority from offsetting collections, mandatory:			
1800 Collected	50	11	8
1801 Change in uncollected payments, Federal sources	-3	-1	.....
1825 Spending authority from offsetting collections applied to repay debt	-41	.....	.....
1850 Spending authority from offsetting collections, mandatory (total)	6	10	8
1900 Financing authority (total)	24	52	38
1930 Total budgetary resources available	24	52	38
Change in obligated balances			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	376	94	58
3010 Obligations incurred, unexpired accounts	24	52	36
3020 Financing disbursements (gross)	-306	-88	-36
3050 Unpaid obligations, end of year	94	58	58
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	-4	-1	.....
3070 Change in uncollected pymts, Fed sources, unexpired	3	1	.....
3090 Uncollected pymts, Fed sources, end of year	-1	.....	.....
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	372	93	58
3200 Obligated balance, end of year	93	58	58
Financing authority and disbursements, net:			
Mandatory:			
4090 Financing authority, gross	24	52	38
4110 Financing disbursements, gross	306	88	36
Offsets against gross financing authority and disbursements:			
Offsetting collections (collected) from:			
4120 Federal sources	-43	-3	.....
4122 Interest on uninvested funds	-3	-1	-1
4123 Non-Federal sources	-4	-7	-7
4130 Offsets against gross financing auth and disbursements (total)	-50	-11	-8
Additional offsets against financing authority only (total):			
4140 Change in uncollected pymts, Fed sources, unexpired	3	1	.....
4160 Financing authority, net (mandatory)	-23	42	30
4170 Financing disbursements, net (mandatory)	256	77	28
4180 Financing authority, net (total)	-23	42	30
4190 Financing disbursements, net (total)	256	77	28

STATUS OF DIRECT LOANS
In millions of dollars

Identification code: 69-4348-0-3-401	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Position with respect to appropriations act limitation on obligations:			
1131 Direct loan obligations exempt from limitation	.....	.....	.....
1150 Total direct loan obligations	.....	.....	.....
Cumulative balance of direct loans outstanding:			
1210 Outstanding, start of year	650	956	983
1231 Disbursement: Direct loan disbursements	282	.....	.....
1261 Adjustments: Capitalized interest	24	27	28
1290 Outstanding, end of year	956	983	1,011

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
TIFIA GENERAL FUND PROGRAM ACCOUNT

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-0542-0	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Obligations by program activity:			
0705 Reestimates of direct loan subsidy	39	3	.....
0706 Interest on reestimates of direct loan subsidy	1	.....	.....
0900 Total new obligations	40	3	.....
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	.....	.....	.....
Budget authority:			
Spending authority from offsetting collections, discretionary:			
1200 Appropriation	40	3	.....
1260 Appropriations, mandatory (total	40	3	.....
1930 Total budgetary resources available	40	3	.....
Change in obligated balances			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	5	2	.....
3010 Obligations incurred, unexpired accounts	40	3	.....
3020 Outlays (gross)	-43	-5	.....
3050 Unpaid obligations, end of year	2	.....	.....
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	5	2	.....
3200 Obligated balance, end of year	2	.....	.....
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	.....	.....	.....
Outlays, gross:			
4010 Outlays from new discretionary authority	.....	.....	.....
4011 Outlays from discretionary balances	3	2	.....
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4080 Outlays, net (discretionary)	3	2	.....
4090 Budget Authority (gross)	40	3	.....
4100 Outlays from new mandatory authority	40	3	.....
4160 Budget authority, net (mandatory)	40	3	.....
4170 Outlays, net (mandatory)	40	3	.....
4180 Budget authority, net (total)	40	3	.....
4190 Outlays, net (total)	43	5	.....

OBJECT CLASSIFICATION
In millions of dollars

Identification code: 69-0542-0	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct Obligations:			
41.0 Grants, subsidies, and contributions	40	3	.....

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DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
RIGHT-OF-WAY REVOLVING FUND

BACKGROUND

The Federal-Aid Highway Act of 1968 authorized the establishment of a right-of-way revolving fund. This fund was used to make cash advances to States for the purpose of purchasing right-of-way parcels in advance of highway construction and thereby preventing the inflation of land prices from significantly increasing construction costs. The purchase of right-of-way is an eligible expense of the Federal-aid program.

This program was terminated by the Transportation Equity Act for the 21st Century of 1998, but will continue to be shown for reporting purposes as loan balances remain outstanding.

BUDGETARY RESOURCES

No new budgetary resources are requested in FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
RIGHT-OF-WAY (ROW) REVOLVING FUND
LIQUIDATING ACCOUNT

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-8402-0-8-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	.....	.....	.....
1021	Recoveries of prior year unpaid obligations	.....	.....	.....
1022	Capital transfer of unobligated balances to general fund	.....	.....	.....
1050	Unobligated balance (total)	.....	.....	.....
Budget authority:				
Spending authority from offsetting collections, mandatory:				
1800	Collected	.....	.....	.....
1820	Capital transfer of spending authority from offsetting collections to general fund	.....	.....	.....
1850	Spending authority from offsetting collections, mandatory (total)	.....	.....	.....
1930	Total budgetary resources available	.....	.....	.....
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	4	4	.....
3020	Outlays (gross)		-4	.....
3040	Recoveries of prior year unpaid obligations, unexpired	.....	.....	.....
3050	Unpaid obligations, end of year	4	.....	.....
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	4	4	.....
3200	Obligated balance, end of year	4	.....	.....
Budget authority and outlays, net:				
Mandatory:				
Outlays, gross				
4101	Outlays from mandatory balances	.....	4	.....
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4123	Non-Federal sources	.....	.....	.....
4160	Budget authority, net (mandatory)	.....	.....	.....
4170	Outlays, net (mandatory)	.....	4	.....
4180	Budget authority, net (total)	.....	.....	.....
4190	Outlays, net (total)	.....	4	.....

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
STATE INFRASTRUCTURE BANKS

BACKGROUND

In FY 1997, FHWA received an appropriation from the General Fund for the State Infrastructure Banks (SIBs) program.

All of the funds have been provided to the States to capitalize the infrastructure banks. Because the funding was provided as grants, and not loans, FHWA will not receive reimbursements of amounts expended for the SIBs program.

BUDGETARY RESOURCES

No new budgetary resources are requested in FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
STATE INFRASTRUCTURE BANKS
DIRECT LOAN FINANCING ACCOUNT

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-0549-0-1-401		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	1	1	1
1,930	Total budgetary resouces available	1	1	1
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	1	1	1
4180	Budget authority, net (total)	……	……	……
4190	Outlays, net (total)	……	……	……

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
HIGHWAY INFRASTRUCTURE PROGRAMS

BACKGROUND

In FY 2010, the Federal Highway Administration received a General Fund appropriation of $650 million for the restoration, repair, and construction of highway infrastructure and other activities eligible under paragraph (b) of section 133 of title 23, United States Code. The authority for this appropriation is Division A, Title I of P.L. 111-117 (Consolidated Appropriations Act, 2010), Section 122 and was available through FY 2012.

BUDGETARY RESOURCES

No new budget authority is requested for FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
HIGHWAY INFRASTRUCTURE PROGRAMS

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-0548-0		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Budgetary resources:				
Budget authority:				
Appropriations, discretionary:				
1160	Appropriation, discretionary (total)	……	……	……
Change in obligated balance:				
Unpaid obligations				
3000	Unpaid obligations, brought forward, Oct 1	11	7	3
3020	Outlays (gross)	-3	-4	-3
3041	Recoveries of prior year unpaid obligations, expired	-1	……	……
3050	Unpaid obligations, end of year	7	3	……
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	11	7	3
3200	Obligated balance, end of year	7	3	……
Budget authority and outlays, net:				
Discretionary:				
4011	Outlays form discretionary balances	3	4	3
4080	Outlays, net (discretionary)	3	4	3
4180	Budget authority, net (total)	……	……	……
4190	Outlays, net (total)	3	4	3

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
PAYMENT TO THE HIGHWAY TRUST FUND

BACKGROUND

For FY 2016, Section 31202 of Public Law 114-94, Fixing America's Surface Transportation (FAST) Act, authorized additional appropriations from the General Fund of the Treasury to the Highway Account and Mass Transit Account of the Highway Trust Fund in the amounts of $51.9 billion and $18.1 billion, respectively. This payment was not subject to sequestration, per OMB A-11 Section 100.15, because the budgetary resources were enacted after the Sequestration Order for FY 2016 was signed.

BUDGETARY RESOURCES

No payments to the Highway Trust Fund are requested for FY 2018.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
PAYMENT TO THE HIGHWAY TRUST FUND

PROGRAM AND FINANCING SCHEDULE
In millions of dollars

Identification code: 69-0534-0		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
New obligations:				
Obligations by program by activity:				
0001	Direct program activity	70,000	.....	.....
0900	Total new obligations	70,000	.....	.....
Budget authority:				
Appropriations, mandatory:				
1200	Appropriation	70,000	.....	.....
1260	Appropriation, mandatory (total)	70,000	.....	.....
1930	Total budgetary resources available	70,000	.....	.....
Change in obligated balances				
Unpaid obligations				
3000	Unpaid obligations, brought forward, Oct 1	.....	.....	.....
3010	Obligations incurred, unexpired accounts	70,000	.....	.....
3020	Outlays (gross)	-70,000	.....	.....
3050	Unpaid obligations, end of year	.....	.....	.....
Budget authority and outlays, net:				
Mandatory:				
4090	Budget authority, gross	70,000	.....	.....
4100	Outlays from new mandatory authority	70,000	.....	.....
4160	Budget authority, net (mandatory)	70,000	.....	.....
4170	Outlays, net (mandatory)	70,000	.....	.....
4180	Budget authority, net (total)	70,000	.....	.....
4190	Outlays, net (total)	70,000	.....	.....

OBJECT CLASSIFICATION
In millions of dollars

Identification code: 69-0534-0		FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST
Direct Obligations:				
94.0	Financial transfers	70,000	.....	.....
99.9	Total new obligations	70,000	.....	.....

EXHIBIT IV-1
RESEARCH, TECHNOLOGY & EDUCATION
DEPARTMENT OF TRANSPORTATION
Budget Authority
($000)

FEDERAL HIGHWAY ADMINISTRATION Research, Technology & Education (RT&E) Program	FY 2016 ACTUAL	FY 2017 ANNUALIZED CR	FY 2018 REQUEST	FY 2018 APPLIED	FY 2018 DEVELOP.
A. Highway Research and Development	**118,625**	**113,125**	**125,000**	**68,000**	**17,000**
Highway Research and Development	*85,410*	*76,925*	*85,000*	*68,000*	*17,000*
Highway Research and Development (T) [1/]	*33,215*	*36,200*	*40,000*		
B. Technology and Innovation Deployment Program (T)	**63,583**	**61,088**	**67,500**	**0**	**0**
C. Training and Education (T)	**22,776**	**21,720**	**24,000**	**0**	**0**
D. Intelligent Transportation Systems	**94,900**	**90,500**	**100,000**	**79,000**	**0**
Intelligent Transportation Systems	*74,971*	*71,495*	*79,000*	*79,000*	*0*
Intelligent Transportation Systems (T)	*19,929*	*19,005*	*21,000*		
E. University Transportation Centers (UTC) (T) [2/]	**68,803**	**67,875**	**75,000**	**0**	**0**
F. State Planning and Research (SP&R) [3/]	**195,224**	**199,894**	**204,214**	**122,528**	**30,632**
State Planning and Research (SP&R)	*146,418*	*149,921*	*153,161*	*122,528*	*30,632*
State Planning and Research (SP&R) (T)	*48,806*	*49,974*	*51,054*		
G. Administrative Expenses	**19,531**	**20,736**	**21,130**	**12,679**	**3,169**
Administrative Expenses	*14,648*	*15,552*	*15,847*	*12,679*	*3,169*
Administrative Expenses (T)	*4,883*	*5,184*	*5,282*		
H. Advanced Transportation & Congestion Mgmt. Technologies Deployment [Non-add] [4/]	**[60,000]**	**[60,000]**	**[60,000]**	**0**	**0**
Subtotal	**583,442**	**574,938**	**616,844**	282,207	50,801
Subtotal, Research and Development [5/]	321,447	313,893	333,008	282,207	50,801
Subtotal, Technology Investment (T) [5/]	261,994	261,045	283,836		
Add: Bureau of Transportation Statistics [2/]	26,000	26,000	26,000		
Less: Administrative Expenses	-19,531	-20,736	-21,130		
Less: State Planning and Research (SP&R)	-195,224	-199,894	-204,214		
Total Title V Programs [5/ 6/]	**394,687**	**380,308**	**417,500**		

1/ Throughout the exhibit, (T) represents funding used for technology investment.

2/ Details for this program are contained in the Office of the Assistant Secretary for Research and Technology FY 2018 budget.

3/ Title 23 USC 505(b) requires State DOT's to expend no less than 25 percent of their annual SP&R funds on RT&E activities. Total SP&R funding represents 2 percent of apportioned programs, exclusive of the Metropolitan Planning Program.

4/ Per the FAST Act, the Advanced Transportation & Congestion Management Technologies Deployment Program will be funded by set-asides from Highway Research and Development, Technology and Innovation Deployment Program, and Intelligent Transportation Systems.

5/ Subtotals may not add due to rounding.

6/ FY 2016 amounts reflect the 5.1% "lop-off" resulting from the imposition of the obligation limitation. FY 2017 amounts reflect an estimated "lop-off" of 9.5% based on an annualized CR. FY 2018 amounts are authorized amounts prior to any "lop-off" determined for FY 2018.

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FEDERAL HIGHWAY ADMINISTRATION
RESEARCH, TECHNOLOGY, AND EDUCATION (RT&E)

RT&E PROGRAM NAME: HIGHWAY RESEARCH & DEVELOPMENT PROGRAM

AMOUNT REQUESTED FOR FY 2018: $125 million

Project Name or Program Activity: Core Highway Research and Development Programs

Objectives: To improve the mobility of people and goods; reduce congestion; promote safety; improve the durability and extend the life of transportation infrastructure; preserve the environment; and preserve the existing transportation system.

Description: FHWA's core R&D programs improve safety, enhance the transportation infrastructure, reduce congestion, provide data and analysis to transportation decision-makers, and improve infrastructure designs to enhance connectivity throughout communities.

- The Safety research area addresses the contributing factors of deaths and injuries related to roadway design, construction, and maintenance, and develops robust data analysis tools that enable transportation professionals to match contributing factors with cost-effective countermeasures.
- The Infrastructure area engages in forward-looking research that supports safety, durability, resilience, environmental sustainability and asset management while modernizing bridges and roads through improved test methods and specifications, innovative materials, new construction techniques, and improved quality assurance processes.
- The Operations area develops innovative technologies and processes that lead to system-wide improvements in how FHWA and its State and local partners manage and increase the reliability of the NHS, and conducts activities to improve the efficient movement of freight on the National Highway Freight Network.
- The Policy area develops and implements new data methods, supports international exchanges and collaboration, evaluates the impacts of a broad range of policy options, and analyzes current and emerging issues that will affect how transportation systems are built, maintained, and used.
- The Planning and Environment area assesses new tools and processes that consider the complex relationships among individuals, communities, the economy, and the environment, to enable better decisions and lead to improved outcomes.
- The Exploratory Advanced Research program conducts longer-term, higher-risk research in all the research areas above. These research products have the potential for dramatic breakthroughs in transportation and ensure a continued U.S. pipleline of technology innovations.
- The Turner-Fairbank Highway Research Center is a federally-owned and operated research facility in McLean, VA, where most of FHWA's research projects are conducted, sponsored, or coordinated.

Outputs and Deliverables	**Outcomes and Impacts**
Safety analysis tools, procedures, and design guides.	Better highway, intersection, roadside, pedestrian, and bicyclist safety design.
Countermeasures to keep vehicles on the road and to reduce the severity of crashes, particularly pedestrian and bicycle crashes.	Improved safety through reduction of crash frequency and severity.
Improved design systems, materials selection, and performance prediction technologies to optimize infrastructure performance for new and recycled materials.	Enhanced quality and durability of pavements, bridges, tunnels, and other highway structures.
Advanced materials and accelerated construction technologies for new construction and in the repair and rehabilitation of existing highway infrastructure.	Improved highway performance. Minimized impact of construction on traffic.
Expanded guidance on environmentally sound highway construction practices.	Decreased environmental impacts from highway construction.
Publicly available data sets documenting the performance of a well-characterized set of pavement test sections and bridges.	Improved evidence-based highway decisions based on current data.
Emissions, energy efficiency and fuels, sustainability, resiliency and adaptation, connectivity, bicycle and pedestrian and livability strategies.	Improved state of the practice regarding the impact of transportation on the environment and communities.
Techniques to improve decision-making through collaboration, coordination and communication.	Accelerated project delivery and environmental mitigation.
Promotion of environmental streamlining/stewardship and sustainability.	Strengthened and advanced State/local and Tribal capabilities regarding surface transportation and the environment.
Techniques to measure congestion when it occurs and to assess the performance of the highway system.	Improved decision-making tools to address causes of congestion.
Techniques to measure the role freight movement plays in congestion and the effects of congestion on interstate commerce.	Improved freight operations and interstate commerce.
Techniques and tools to proactively manage the transportation system during disruptions such as traffic incidents, work zones, adverse weather, special events, and emergency situations.	Decreased congestion during disruptive events.
System specifications, test results, benefits assessments, and stakeholder understanding of connected automation applications to improve operations.	Decreased recurring congestion and more realistic plans for future highways.
Innovative techniques to better balance transportation supply and demand through congestion pricing.	Improved tools for decision-makers addressing congestion; improved traffic flow.
Status of the Nation's Highways, Bridges, & Transit: Conditions & Performance report to Congress.	Reliable data and analysis for improved transportation decisions.
Enabled Data and Information Framework	Provided foundational and systemic data

Supporting Informed Decision Making.	for safety, infrastructure, planning, operations and policy research and program management.

Project Name or Program Activity: Surface Transportation System Funding Alternatives

Objectives: To develop solutions to maintain the long-term solvency of the Highway Trust Fund.

Description: As required by the FAST Act, this program will provide grants to States to demonstrate user-based revenue mechanisms that utilize a user fee structure to maintain the long-term solvency of the Highway Trust Fund. The FAST Act made available $15 million in FY 2016 and $20 million for each year from FY 2017 through FY 2020 for this program.

Outputs and Deliverables	Outcomes and Impacts
Recommendations regarding adoption of user-based alternative revenue mechanisms.	Improved functionality of user-based alternative revenue mechanisms.
Lessons learned for future deployment of alternative revenue mechanisms that utilize a user fee structure.	Increased public awareness regarding the need for alternative funding sources for surface transportation programs.

Project Name or Program Activity: Performance Management Data Support Program

Objectives: To improve data collection for performance analysis

Description: Per the FAST Act, up to $10 million for each of fiscal years 2016 through 2020 may be used to carry out this program. This initiative will develop, use, and maintain data sets and data analysis tools to assist metropolitan planning organizations, States, and the FHWA in carrying out performance management analyses.

Outputs and Deliverables	Outcomes and Impacts
Reliable data sets and data analysis tools for performance management analysis.	Improved decision-making tools to evaluate the effects of project investments on performance.

RT&E PROGRAM NAME: TECHNOLOGY AND INNOVATION DEPLOYMENT PROGRAM (TIDP)

AMOUNT REQUESTED FOR FY 2018: $67.5 million

Objectives: To accelerate the adoption of proven innovative practices and technologies as standard practices to significantly improve safety, system efficiency, infrastructure health, reliability and performance, and livable/sustainable communities.

Description: FHWA achieves the objectives of this program though the following sub-programs:

- *Every Day Counts Initiative (EDC)*: The FAST Act recognizes the success of the EDC program and adds it as a required program. EDC identifies under-utilized market-ready technologies with high pay-offs and accelerates their deployment and acceptance throughout the Nation.
- *Accelerated Innovation Deployment (AID) Demonstration Program*: Provides incentive funding for eligible entities to accelerate the implementation and adoption of innovation in highway transportation at the project level.
- *State Transportation Innovation Council (STIC) Incentive Program*: Offers technical assistance and up to $100 thousand per STIC per year to support the costs of standardizing innovative practices in a State DOT or other public sector STIC stakeholder.
- *Accelerated deployment of pavement technologies*: The FAST Act extends the designation of $12 million per fiscal year to promote, demonstrate, support, and document the application of innovative pavement technologies, practices, performance, and benefits.
- *Advanced Transportation and Congestion Management program*: The FAST Act requires FHWA to award grants to States and other entities to deploy technologies with the potential to relieve congestion and improve the quality of life. The FAST Act made available $60 million per fiscal year for this program.
- Accelerated deployment of innovative methods, practices, and technologies to States and transportation practitioners through program area-focused implementation.

Outputs and Deliverables	**Outcomes and Impacts**
Accelerated deployment of innovative methods, practices, and technologies to States and transportation practitioners.	Improved safety and infrastructure integrity; increased support of all DOT and FHWA goals and objectives.
Accelerated adoption of market-ready technologies through the EDC initiative.	Significant acceleration of the benefits provided by new technologies.
Incentive funding to STICs to conduct internal assessments, develop guidance, standards, and specifications, implement process changes, or fund other activities to deploy innovations.	Increased use of innovations though assisting States offset the risks of trying innovations.
Grants to States to implement advanced transportation and congestion management technologies.	Reduced congestion, improved travel reliability.

RT&E PROGRAM NAME: TRAINING AND EDUCATION (T&E)

AMOUNT REQUESTED FOR FY 2018: $24 million

Objectives: To foster a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing the knowledge of the transportation workforce and decision

makers through training and information exchanges. To attract qualified students to the field of transportation and advance transportation workforce development.

Description: This program provides leadership, training, educational materials and resources for the development and delivery of training, professional development and education programs to improve the quality of our highway system and its intermodal connections. It also provides educational opportunities to the surface transportation community through developing core competencies and new skills, enabling technology transfer, and sharing best practices.

Outputs and Deliverables	**Outcomes and Impacts**
Training resources to customers, partners, and learners in every State.	Improved workforce training.
Information, professional development, training, and facilitate technology transfer to local governments and Tribal agencies.	Advancements in State, local, and Tribal capabilities regarding the complex relationships in surface transportation.
Scholarships, fellowships, educational grants.	Advancement of careers in transportation.
The National Network for the Transportation Workforce (NNTW) consisting of five Regional Surface Transportation Workforce Centers serves as a resource to support, grow and maintain a skilled and career-ready transportation workforce.	Strategic partnerships to communicate workforce programs and best practices to educators andemployers.
Grants to educational pipeline organizations for educational materials and innovative practices in transportation.	A well-educated transportation workforce.
Congressionally-mandated centers for surface transportation excellence to address the areas of environment, surface transportation safety, rural safety, and project finance.	Enhanced surface transportation programs and activities in the areas of environment, safety, and project finance.

RT&E PROGRAM NAME: INTELLIGENT TRANSPORTATION SYSTEMS PROGRAM (ITS)

AMOUNT REQUESTED FOR FY 2018: $100 million

Project Name or Program Activity: Connected Vehicles (CV)

Objectives: To integrate CV system needs into legacy ITS (Research); to collect benefits and costs and implementation lessons learned information from high priority CV applications (Development); and to support State and local, and transit agency functions in the CV environment deployments (Adoption).

Description:
The USDOT's top priority is the safety of all users of the transportation system. In keeping with this objective, the ITS Joint Program Office (JPO) in coordination with USDOT's modal entities and in collaboration with state officials, industry, car manufacturers, academia, and other organizations, created a technology-driven framework to advance CV development. The CV Program is the keystone of ITS JPO's research and engagement process building on over a decade of experience aligned with USDOT's mission of advancing safety innovations in transportation. Capabilities leveraging these safety innovations also have demonstrated capability to provide new levels of personal mobility and dramatically improve the efficiency of goods movement.

The current flagship effort of the program is the CV Pilot Deployment Program, funding large-scale CV system implementation efforts led by the New York City Department of Transportation (NYCDOT); the Tampa Hillsborough Expressway Authority (THEA); and the Wyoming Department of Transportation (WYDOT). Similar, interoperable technologies are being used differently at these three sites to improve safety in environments as diverse as dense urban grid networks and isolated high-plains interstates. The three sites piloted a deployment planning process that is transferrable to other regions in the US. All sites are currently completing a design/test/build phase before moving on to an operational phase in Spring 2018.

Outputs and Deliverables	**Outcomes and Impacts**
Operate CV Pilot sites in New York City, Tampa, FL and Wyoming.	Demonstrations of CV environments that fit into real-world environments of today.
Conduct evaluation to support CV Pilot deployment.	Real-time and real-world data to help with transportation planning and transportation system operations.
Operate SCMS for CV deployment sites. Prepare Final Report for Heavy Vehicles BSM and implementation issues for deployment.	Increase in safety, mobility, system efficiency and access to resources for disadvantaged groups, and decreases in vehicle emissions.
Develop on-board requirements and certification procedures for V2V systems (from NHTSA CAMP SE task).	Increased opportunities to partner with non-government groups, such as private industry and universities.
Develop minimum performance requirements and characteristic effectiveness for haptic driver-vehicle interfaces for crash warning systems (from NHTSA Haptic Warning project).	Reduction of fatalities through weather-related safety, infrastructure-based, and other applications.

Project Name or Program Activity: Automated Vehicles (AV)

Objectives: To define the core elements and the performance criteria for automation (Research); to test automation components in the Smart City Challenge and FAST Act Advanced Transportation and Congestion Management Technologies Deployment Program grants, as well

as in other test situations (Development); and to define the Federal role in facilitating and encouraging deployment of automated systems (Adoption).

Description: The development of AV technology is occurring at a rapid pace, with industry investing billions of dollars a year. Several states have enacted legislation regarding AV and testing is currently occurring on public roads. Partially automated vehicles are available in the market today and heavy vehicle automation technologies are approaching commercialization.

Recognizing the importance of these recent advancements, the USDOT is playing a significant role in addressing the key technological and institutional barriers that have emerged.
In 2013-14, the Intelligent Transportation System Joint Program Office (ITS JPO) initiated the AV research program and developed a multi-modal program plan. The goal of ITS JPO automation research is to promote policy and technical research to reduce risks and produce positive outcomes. The program seeks to "enable safe, efficient, and equitable integration of automation into the transportation system."

ITS JPO program research is conducted by ITS JPO staff and stakeholders in collaboration with other USDOT modal agencies in keeping with the ITS JPO's coordination role. The ITS JPO works closely with NHTSA, FHWA, FTA, FMCSA, and MARAD to address key technical and policy challenges for automation.

Outputs and Deliverables	**Outcomes and Impacts**
Conduct a study of driver expectations for control errors, engagement, and crash avoidance in automated mixed function vehicles and report results. Conduct a study of automated vehicle intent and status communication with other road users and report results. Conduct a study on automated vehicle needs during adverse weather and report the results.	Reduce the number and severity of crashes caused by drivers or by other conditions (e.g. weather, pedestrians, and roadway conditions).
Advance the state-of-the-practice for understanding the impacts of AVs on congestion, personal mobility, and travel behavior. Assess the mobility and equity impacts of automated vehicle deployment.	Expand the reach of transportation modes to disabled and older users and provide "last mile" connectivity services for all users.
Prepare technical finding briefs and reports of simulator experiments of driver acceptance of level 1 automation. Complete naturalistic study of L2 automated vehicle functions in over-the-road driving, including longer engagement trips, and report results. Publish results from vehicle automation benefits modeling.	Provide guidance to State and local agencies to help the understanding of impacts of automated vehicles on the assets they manage.

Identify research and deployment state of the practice for low-speed automated shuttles to improve the quality of publically-funded pilots, and to disseminate findings quickly to a broad audience. Identify policy areas that require Federal government involvement and where policies may need to be revised or developed to support the safe deployment of automated vehicles.	

Project Name or Program Activity: Emerging Technology

Objectives: The Emerging Technology program initiatives focuses on cultivating the next generation of transportation systems. As the scale of ITS increases, vehicle manufacturers, infrastructure providers, innovators, and entrepreneurs discover new opportunities to use technology and the data that will be generated. These technological advances, new functionality, new applications, new operational concepts, and disruptive innovations need to be tracked by the USDOT to determine technological, market, and demographic trends throughout the globe and across industries to seek, evaluate and sometimes incubate emerging capabilities that demonstrate the potential to transform transportation. As this happens, the USDOT will be positioned and engaged as a partner to guide research, development, and technology adoption in a systematic manner.

An example of a major initiative in Emerging Capabilities program is the Smart City Challenge. The Smart City Challenge was launched in December 2015 as an innovative competition for cities to reshape their transportation systems harnessing the power of technology, data, and creativity to reimagine how people and goods move. The challenge called on cities to do more than merely introduce new technologies onto their streets, requiring them to boldly envision new solutions that would change the face of transportation by closing the gap between rich and poor; capturing the needs of both young and old; and bridging the digital divide through smart design so that the future of transportation meets the needs of all residents.

Seventy-eight cities submitted entries to the competition, and in March 2016, seven finalists were selected. The finalists included Austin, Columbus, Denver, Kansas City, Pittsburgh, Portland, and San Francisco. Each finalist was awarded $100 thousand to develop detailed applications that captured their plans to conduct a federally funded Smart City Demonstration in their jurisdiction. In June 2016, Columbus was selected as the winner of the Smart City Challenge.

Description: This area scans the technology horizon for emerging technologies and trends. It addresses our statutory requirement for the Small Business Innovation Research (SBIR) program as well as conducting focused technology inquiries on emerging capabilities with a focus on future generations of transportation systems. ITS Joint Program Office is working with the Saint Lawrence Seaway Corporation and United States Maritime Administration to implement freight related emerging technologies in projects to enhance goods movement.

Outputs and Deliverables	Outcomes and Impacts
Conduct a demonstration and evaluation with Columbus, Ohio to test, evaluate and demonstrate the benefits of connected city concepts. Identify truck port staging, queuing and access technology applications and approaches for the ITS MARAD Program.	Forge stronger relationships and partnerships with private industry and universities. Ability to adapt existing or upcoming program to accommodate new ITS technologies. Stimulate economic growth through innovation and technological leadership.

Project Name or Program Activity: Enterprise Data

Objectives: To integrate new data sets with other legacy data management systems (Research); to identify a model for data management and ownership (Development); and to enable new business relationships between the public and private section to ensure privacy protection (Adoption).

Description: As our transportation system becomes more technologically advanced, connected, and automated, it may generate unprecedented amounts of data of increasing complexity. New methods to collect, share, and use these data may be needed for management and operations of ITS, and state and local governments need to have the capacity – and motivation – to implement these new methods nationwide to enable interoperability of the future transportation system and effective privacy protection for travelers. The Enterprise Data program will develop a better understanding of critical uses for these data, their value for the public, private, and academic sectors, and the potential Federal role in enabling these data to be collected and shared to unlock the full potential societal value of deploying these new technologies.

Outputs and Deliverables	Outcomes and Impacts
Identification of opportunities to integrate CV data and enhanced data collection into transportation management systems for integrated big data in operational practice. Conduct national/regional workshops (and supporting virtual events/activities) to elicit stakeholder needs related to data sharing, identify potential approaches to federate data among operational data environments, and summarize findings. Engage state and local agencies regarding the value of sharing data among multiple Operational Data Environments (ODEs), develop use cases for sharing real-time data among ODEs as well as finding regional/national uses of the data,	Improve quality (accuracy and timeliness) of data. Increase efficiency of information sharing. Assuring the public that the privacy of data will be protected. Stimulate innovation in new applications by enabling research. Monitor performance and enabling more efficient responses.

development of institutional, financial, and technical products useful to encouraging efficient data sharing across jurisdictions and functional boundaries in the surface transportation system.	

Project Name or Program Activity: Interoperability

Objectives: To develop and evolve a comprehensive National ITS reference system architecture to support large scale interoperable ITS infrastructure, connected vehicle, and connected automation deployments across the nation – and across borders with Canada and Mexico (Development); to develop and maintain an inventory of candidate interfaces for standardization and support standards development efforts for interfaces where there is greatest public interest and benefit, including those interfaces required to support regulatory activity (Development); to cooperate internationally, leveraging common interests to reduce US resource requirements, access broader expertise, speed development and harmonize architecture and standards to support an international marketplace for US vendors (Adoption); and to facilitate availability of testing and certification processes and procedures to ensure required interoperability and regulatory compliance (Adoption).

Description:

Interoperability is essential for the safe, secure and efficient operation of the transportation system. As ITS are focused on the application of Information Technology (IT) to manage and operate the surface transportation network, interoperability and cybersecurity needs are partially analogous to those of the internet with the added dimension of ITS supporting operation of physical systems which move people and goods -- where failures can have severe consequences.

As ITS evolves to include more than – for example traffic signal coordination or ramp metering – to a nationwide or, preferably North American, complex "system of systems" including connected and automated vehicles, secure system-wide interoperability becomes far more critical. Incorporating CV capabilities offers great promise to improve safety and mobility while reducing fuel consumption. However, once vehicles, which can easily travel across North America, become part of the ITS system, multi-regional interoperability becomes a requirement rather than merely a benefit. Beyond interoperability, standards-based ITS deployments can facilitate more competitive procurement of ITS components and systems and incentivize innovation. Open, interoperable and secure systems will reduce life-cycle cost and increase performance. ITS JPO supports interoperability via funding and work program execution in cross-modal cooperation with all US DOT surface transportation modes along with state, local, international, industry and academic partners

Outputs and Deliverable	**Outcomes and Impacts**
Release of second version 2 of the integrated ITS reference architecture and toolset to support large-scale infrastructure and connected vehicle deployments. Architecture evolution to continue to remain consistent with ITS infrastructure, connected vehicle and	Nationwide interoperability for all participants in the ITS system inclusive of ITS-supported cross border movement of people and goods. Architecture and standards tools and solutions that facilitate efficient, effective and secure

connected automation technological advancements, inclusive of and stakeholder input, and leveraging international cooperation when in the public interest. Complete detailed IT and ITS standards recommendations for all interfaces within the connected vehicle portion of the system architecture, identify remaining gaps to be addressed. Work is conducted in resource-sharing collaboration with Australia and Europe; leveraging common interests to minimize cost to US while accessing international expertise. Evaluate and initiate internationally cooperative effort to further enhance support for full-scale connected vehicle developments by adding detailed test and certification recommendations for key interfaces within the connected vehicle portion of the architecture. Work planned to be conducted in resource-sharing collaboration with Australia and Europe; leveraging common interests to minimize cost to US while accessing international expertise. Building on the successful completion of vehicle-to-vehicle standards to support initial operating capability, development and updates of key vehicle –to-infrastructure standards to support connected vehicle deployment, leveraging international cooperation when in the public interest. Ongoing support for interoperable architectures with Mexico and Canada to permit North American interoperability for all ITS services and efficient cross-border movement of people and goods. Self-sustaining certification capability for key connected vehicle capabilities.	interoperable ITS infrastructure, connected vehicle and connected automation deployments. Efficient, standardized sharing of relevant information across transportation network operators, users and stakeholders as well as archiving of information to support transportation planning and other analyses. Increased harmonization between U.S. and other global ITS architectures and standards, resulting in broader, more efficient markets for vehicles, infrastructure and services. Maintenance and updates of published standards as needed o assure suitability for intended purposes, security and required forward/backward compatibility to support optimizing performance and life-cycle cost.

Project Name or Program Activity: Accelerating Deployment

Objectives: To define collaboration and communication mechanisms and targets to encourage public and private investment (Research); to develop comprehensive cost benefits and analytic tools that allow deployers to understand the financial and operational benefits of new technologies and systems (Development); and to establish the tools that support the new user base (Adoption)

Description: As new ITS technologies and systems evolve into market-ready products, the ITS program is addressing questions associated with adoption and deployment. The goal of the Accelerating Deployment program is to speed up the transformation of ITS research and prototypes into market-ready technologies that are commercially viable and adopted by the transportation community. This program provides communication and education support to facilitate awareness, understanding, acceptance, adoption, and deployment of ITS technologies across stakeholder groups; and ensures effective partnerships are fostered and developed at various levels – executive, program, and project. We seek to spur adoption of technology, and help stakeholders and localities deploy maturing ITS systems. ITS JPO provides knowledge transfer, and supports technical assistance, training, outreach, program evaluation, and other stakeholder engagement. The program supports advancing ITS research, to initial adoption, and subsequently on to wider scale deployment in coordination with other stakeholders at the federal, state, regional and local levels. The program key areas are discussed in the following.

Outputs and Deliverables:	**Outcomes and Impacts**
Prepare publications in Technical Journals for CV outreach support. Research site recommendations for ITS transit technical support. Conduct CV and AV workshops to increase technical knowledge of connected vehicle and automated vehicle deployers. Create Emerging Technologies outreach and training activities. Develop University ITS & Community College ITS Workshops to facilitate deployment of ITS-CV-AV teaching within higher education venues. Conduct stakeholder outreach through workshops and webinars including peer-to-peer events. Provide active technical assistance to early	Accelerate deployment by assisting with transition planning, training, transition plans, timelines and milestone development. Accelerate deployment through communication and education support to facilitate awareness, understanding, acceptance, adoption, and deployment of ITS technologies across all stakeholder groups. Develop effective partnerships at various levels – executive, program and project. The partnerships will encompass a wide range of public and private partners.

deployers of CV and other emerging ITS technologies.	

RT&E PROGRAM NAME: STATE PLANNING & RESEARCH (SP&R)

AMOUNT REQUESTED FOR FY 2018: $204.21 thousand (non-add)

Objectives: To solve transportation problems identified by the States. To encourage cooperation among States to leverage funds and conduct research of relevance to multi-State regions.

Description: States are required to set aside 2 percent of the apportionments they receive from five of the major Federal-aid programs authorized in MAP-21 for their State Planning and Research Program. At least 25 percent of the total SP&R has to be used for research, development, and technology transfer purposes. Each State may tailor its SP&R program to meet local needs. High priority is given to applied research on State or regional problems, transfer of technologies from researchers to users, and research for setting standards and specifications. States can contribute SP&R research funds to cooperative research programs such as the National Cooperative Highway Research Program and transportation pooled fund studies.

Outputs and Deliverables	Outcomes and Impacts
Reports, data, and tools that meet State and local needs.	Enhanced solutions to highway problems identified by the States.
Technology deployment activities essential to States and local transportation agencies.	Adapting findings to practical applications by developing and transferring new technologies.
Contribution to cooperative research programs such as the National Cooperative Highway Research Program, TRB, and Transportation Pooled Fund projects.	Enhanced collaboration practices with transportation stakeholders.

EXPECTED OUTPUTS OF INTERNAL DOT COLLABORATION (Applies to all RT&E programs)

Examples of current and ongoing collaborative efforts include:

- Accessible Transportation Technologies Research Initiative (ATTRI): FHWA leads ATTRI, a multi-modal USDOT effort designed to enhance mobility choices for travelers with disabilities, including those with mobility, vision, hearing and intellectual impairments, veterans with disabilities, as well as our aging population. The goal is to provide them with the capability to reliably, safely and independently plan and execute their travel, which in turn allows for more opportunities to work and connect. The Federal Transit Administration, the ITS JPO, the National Institute of Disability and Rehabilitation Research and other Federal agencies are participating.

- FHWA coordinates annual publication of the "Freight Facts and Figures", developed in partnership with BTS, FTA and MARAD-- a multi-modal snapshot of freight movement information.
- FHWA partners with the U.S. Army's Aberdeen Test Center and the Department of Homeland Security's Federal Law Enforcement Test Center to support our research and testing of connected and automated vehicle applications and enabling technologies.
- Due to FAA's interest, FHWA has expanded its Traffic Speed Deflection study; and also with other Federal agencies, created a government group examining alternative cementitious materials.
- FHWA is partnering with the NHTSA Special Crash Investigation (SCI) Team to investigate crashes involving the most widely used energy absorbing guardrail end terminals as part of a two-year pilot in-service performance evaluation. This has led to the possibility of including several of the roadway study variables as standard features of future NHTSA data collection efforts.

EXPECTED OUTPUTS OF EXTERNAL DOT COLLABORATION (applies to all RT&E programs)

Examples of current and ongoing collaborative efforts include:

- FHWA staff annually participates in the National Cooperative Highway Research Program (NCHRP) by providing problem statements, participating in selection panels and synthesis groups. In addition, projects not selected for NCHRP funding are considered under FHWA's Exploratory Advanced Research program.
- FHWA administers the Transportation Pooled Fund program, which pools funds (generally SP&R funds) for the States to perform research in areas of interest to one or more States.
- National Transportation Liaison Community of Practice: Transportation liaisons facilitate the environmental and permit review processes for transportation projects by providing technical assistance and coordinating between resource and regulatory agencies, State departments of transportation, and metropolitan planning organizations. FHWA created a Web site to assist liaisons in sharing information and resources. The site includes a resource library, list of subject matter experts, quarterly liaison profiles, a calendar of events, and a newly launched discussion board.
- The FHWA Exploratory Advanced Research Program engages federally funded basic research programs to identify and demonstrate the potential for highway transportation applications from advances in science and engineering and Defense Department research programs and laboratories to identify and demonstrate the potentiual fo civilian uses of advances in military technology

Internal DOT Collaboration Partners **(applies to all RT&E programs)**
National Highway Traffic Safety Administration (NHTSA), Federal Motor Carrier Safety Administration (FMCSA), Federal Aviation Administration (FAA), Federal Transit Administration (FTA), FRA, OST-R, Volpe Center.

External DOT Collaboration Partners: **(applies to all RT&E programs)**
State Transportation Agencies, MPOs, Local Public Agencies, STICs, TRB, AASHTO, UTCs, The Human Factors Coordinating Council, academia, industry, National Association of County

Engineers (NACE), ITS America, Institute if Transportation Engineers (ITE), Society of Automotive Engineers, American Concrete Pavement Association, National Steel Bridge Alliance, Portland Cement Association, the National Asphalt Pavement Association, National Stone Sand and Gravel Association, National Concrete Bridge Council, American Concrete Institute, Association of Metropolitan Planning Organizations (AMPO), National Association of Regional Councils (NARC), non-governmental organizations, first responder community, freight community, International transportation groups, foreign ministries and departments responsible for road transportation; other U.S. Federal agencies and departments, Local and Tribal Technical Assistance Program Centers.

Does this Program/Project have a Technology Component? **(applies to all RT&E programs)**
All FHWA's research programs have a technology component.

Is this Program/Project listed in the USDOT Research Hub or TRB Research in Progress Database? **(applies to all RT&E programs)**
Per the FAST Act, all research programs must be included in the USDOT Research database.

RT&E PROGRAM NAME: UNIVERSITY TRANSPORTATION CENTERS (UTC)

AMOUNT REQUESTED FOR FY 2018: $75 million
Project and activity summaries are contained in the Office of the Secretary of Transportation (OST) -- Office of the Assistant Secretary for Research and Technology FY 2018 budget submission.

RT&E PROGRAM NAME: BUREAU OF TRANSPORTATON STATISTICS (BTS)

AMOUNT REQUESTED FOR FY 2018: $26 million
Project and activity summaries are contained in the Office of the Secretary of Transportation (OST) -- Office of the Assistant Secretary for Research and Technology FY 2018 budget submission.

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