

BUDGET ESTIMATES

FISCAL YEAR 2019

**FEDERAL RAILROAD
ADMINISTRATION**

SUBMITTED FOR THE USE OF
THE COMMITTEES ON APPROPRIATIONS

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

FY 2019 PRESIDENT’S BUDGET JUSTIFICATION

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**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

ADMINISTRATOR'S OVERVIEW

The Federal Railroad Administration's (FRA) mission is to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future. FRA executes this mission by developing and enforcing minimum safety standards, promoting non-regulatory safety activities, investing in rail services and infrastructure, and researching and developing innovative technology solutions.

The FY 2019 President's Budget requests \$959.8 million for FRA, which is offset by \$50 million in Rail Safety User Fees. This request and the initiatives proposed for funding directly align with the Secretary's strategic goals and budget priorities for FY 2019: Safety, Infrastructure, Innovation, and Government Reform.

FRA's top priority is safety. The FY 2019 Budget requests \$202 million for Safety and Operations. To help offset the operational costs of rail safety programs and activities, the President's Budget also proposes to establish a user fee on the railroads that benefit directly and indirectly from these safety programs. FRA will begin collecting user fees in the amount of \$50 million starting in 2019. Support at this level will enable FRA to address railroad safety comprehensively, by funding safety inspectors and specialists; research and development; oversight, enforcement, and outreach; and training. FRA will continue to target its resources toward the most pressing safety challenges:

- Positive Train Control (PTC) Implementation: Compliance monitoring and technical assistance for commuter and intercity passenger railroads in the deployment of positive train control technology and other safety improvements.
- Highway-Rail Grade Crossings and Pedestrian Safety: Collision prevention technologies and motor vehicle driver awareness about highway-rail grade crossing dangers.
- Energy Products: Hazards from large volumes of crude oil and other energy products, including ethanol and liquefied natural gas, moving by rail.
- Drug and Alcohol Program: Compliance monitoring of railroad personnel testing for drug and alcohol use and additional analysis and development of an expert peer review program to disseminate best practices and experiences from Class I freight railroads to commuter railroad programs.

FRA collaborates with the railroad industry to leverage Federal investments in developing innovative technologies and practices that improve rail safety, reliability, and efficiency. FRA also conducts higher-risk and longer-term projects, which private industry would otherwise not undertake, to achieve broad public safety benefits. The FY 2019 Budget Request will advance transformative, next-generation safety technology initiatives, with particular focus on safely automating railroad operating and inspection functions. Requested funding will support:

- Track Program, \$6.0 million – Reducing derailments due to track-related causes.
- Rolling Stock Program, \$5.8 million – Reducing derailments due to equipment failures, minimizing the consequences of derailments, and minimizing hazardous material releases.
- Train Control and Communication Program, \$4.4 million – Reducing train-to-train collisions and train collisions with objects on the line and at grade crossings.
- Human Factors Program, \$2.1 million – Reducing accidents caused by human error.
- Railroad System Issues Program, \$1.3 million – Prioritizing R&D projects on the basis of relevance to safety risk reduction and other Department goals.

The FY 2019 President’s Budget requests \$737.9 million to support Amtrak. This includes \$200 million for the Northeast Corridor and \$537.9 million for the National Network of State-Supported and Long Distance Services.

The FY 2019 Budget Request calls for major reforms in the Federal approach to Amtrak, as well as infrastructure project delivery:

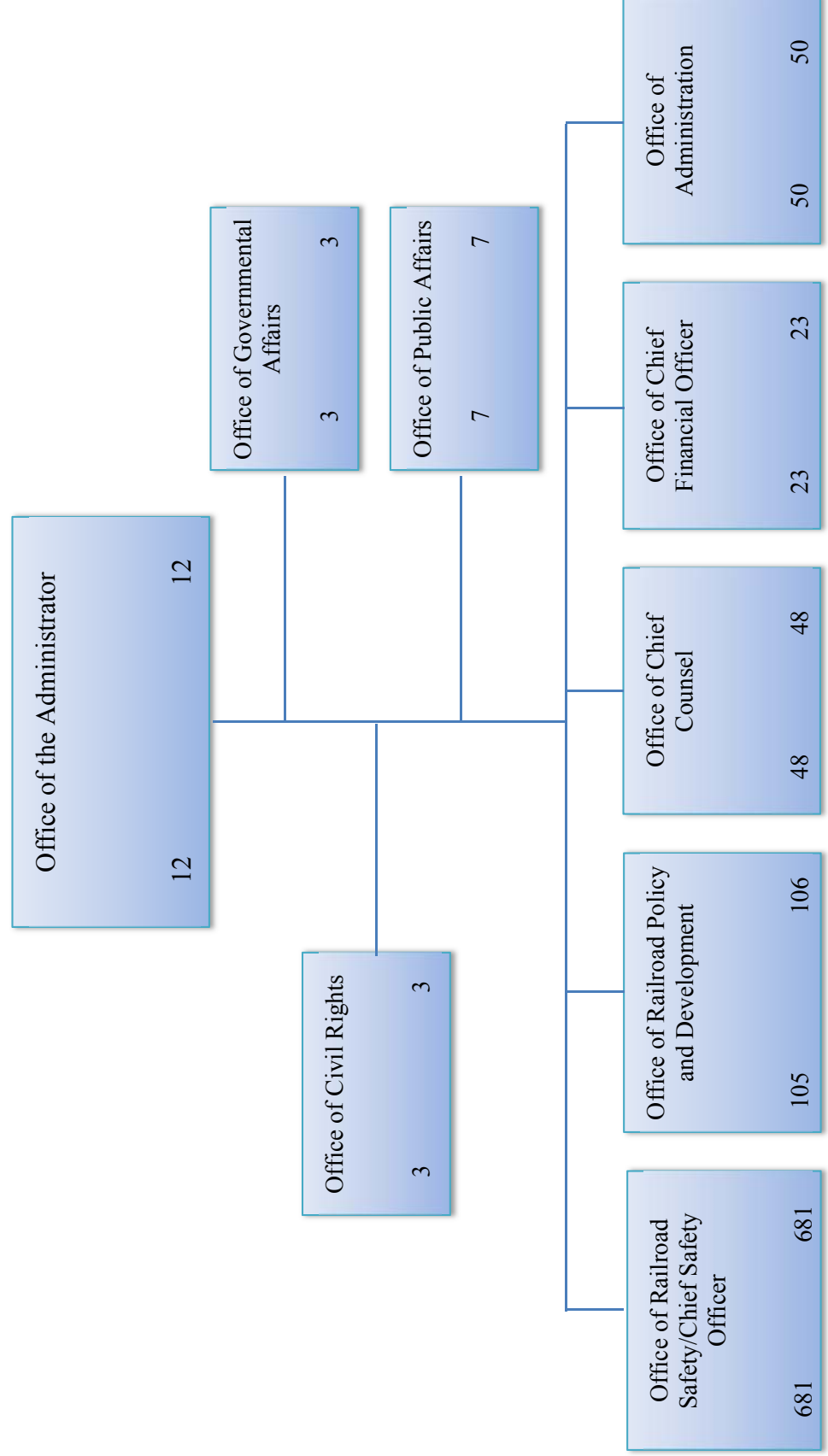
- Rationalize the Amtrak system, improve efficiency, and reduce costs. The FY 2019 President’s Budget proposes to:
 - Implement equal contributions from States to split the operating costs with the Federal government for the Long Distance routes that serve their communities.
 - Provide Federal funds for capital assistance on State-Supported routes, but eliminate subsidy to offset operating costs not covered by State-Supported train revenues or cost allocation policy (approximately \$97 million in FY 2017).
 - Establish an independent commission to recommend how to best restructure or potentially fully eliminate Federal subsidies to the Long Distance network. As the commission conducts its analysis, FRA will work with Amtrak to increase the efficiency of Long Distance service, reduce operating costs, and bring additional value to taxpayer investments, while maintaining service to the majority of the communities who have service today.
- Move publicly- and privately-proposed high-speed passenger rail systems through the project development process efficiently and expeditiously, and ensure they provide adequate levels of safety. FRA will work with projects sponsors to review systems under consideration across the United States that do not align with existing railroad industry standards and regulatory requirements. Consequently, FRA will need to develop tailored Rules of Particular Applicability.

The U.S. rail network is critical to national economic productivity and serves an indispensable role in fulfilling the freight and passenger mobility needs of a population projected to increase by more than 55 million people over the next 25 years. This FY 2019 Budget Request will enable FRA to advance continuous safety improvement and maintain Amtrak services to support the country's long-term economic growth.

DEPARTMENT OF TRANSPORTATION FEDERAL RAILROAD ADMINISTRATION

FY 2018 Organization Chart

932 Full-Time Positions (FTP); 933 Full-Time Equivalents (FTE)



DEPARTMENT OF TRANSPORTATION FEDERAL RAILROAD ADMINISTRATION

FY 2019 Organization Chart

927 Full-Time Positions (FTP); 927 Full-Time Equivalents (FTE)

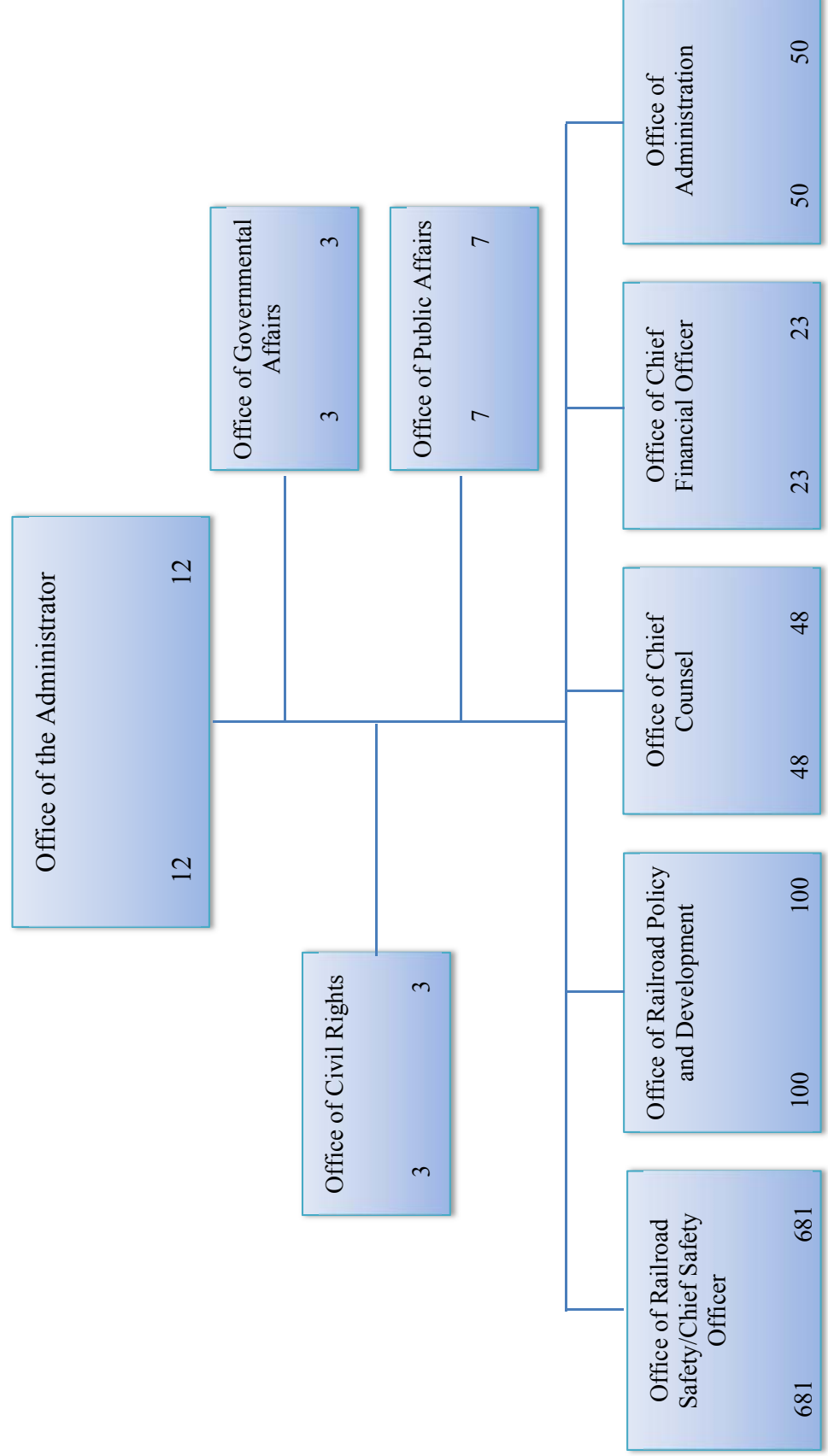


EXHIBIT II-1
FY 2019 COMPARATIVE STATEMENT OF NEW BUDGET AUTHORITY
FEDERAL RAILROAD ADMINISTRATION
(\$000)

ACCOUNT NAME	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
Safety and Operations	218,298	216,816	202,304
Railroad Research and Development	40,100	39,828	19,550
Northeast Corridor Grants to the National Railroad Passenger Corporation	328,000	325,773	200,000
National Network Grants to the National Railroad Passenger Corporation	1,167,000	1,159,075	537,897
Consolidated Rail Infrastructure and Safety Improvements	68,000	67,538	-
Federal-State Partnership for State of Good Repair	25,000	24,830	-
Restoration and Enhancement Grants	5,000	4,966	-
Railroad Rehabilitation and Improvement Financing Program	-	-	-
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service (Cancellation)	-	-	(53,404)
Rail Line Relocation and Improvement Program (Cancellation)	-	-	(2,322)
Rail Safety User Fee	-	-	(50,000)
TOTAL	<u>1,851,398</u>	<u>1,838,826</u>	<u>854,025</u>
Appropriations	1,851,398	1,838,826	959,751
Cancellations	-	-	(55,726)
Offsetting Collections	-	-	(50,000)

EXHIBIT II-2
FY 2019 TOTAL BUDGETARY RESOURCES BY APPROPRIATION ACCOUNT
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

ACCOUNT NAME	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
Safety and Operations	218,298	216,816	202,304
Railroad Research and Development	40,100	39,828	19,550
Northeast Corridor Grants to the National Railroad Passenger Corporation	328,000	325,773	200,000
National Network Grants to the National Railroad Passenger Corporation	1,167,000	1,159,075	537,897
Consolidated Rail Infrastructure and Safety Improvements	68,000	67,538	-
Federal-State Partnership for State of Good Repair	25,000	24,830	-
Restoration and Enhancement Grants	5,000	4,966	-
Railroad Rehabilitation and Improvement Financing Program	-	-	-
TOTAL:	1,851,398	1,838,826	959,751

EXHIBIT II-3
FY 2019 BUDGET REQUEST BY DOT STRATEGIC AND ORGANIZATIONAL GOALS
Appropriations, Obligation Limitation, and Exempt Obligations
FEDERAL RAILROAD ADMINISTRATION
(\$000)

	Safety	Infrastructure	Innovation	Accountability	Total
SAFETY AND OPERATIONS	\$ 126,414	\$ 14,533	\$ 3,843	\$ 57,514	\$ 202,304
RAILROAD RESEARCH AND DEVELOPMENT	\$ -	\$ -	\$ 19,550	\$ -	\$ 19,550
NORTHEAST CORRIDOR GRANTS TO THE NATIONAL PASSENGER RAILROAD CORPORATION	\$ -	\$ 194,000	\$ -	\$ 6,000	\$ 200,000
NATIONAL NETWORK GRANTS TO THE NATIONAL PASSENGER RAILROAD CORPORATION	\$ -	\$ 533,208	\$ -	\$ 4,689	\$ 537,897
CAPITAL ASSISTANCE FOR HIGH SPEED RAIL CORRIDORS AND INTERCITY PASSENGER RAIL SERVICE (CANCELLATION)	\$ -	\$ (53,404)	\$ -	\$ -	\$ (53,404)
RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM (CANCELLATION)	\$ -	\$ (2,322)	\$ -	\$ -	\$ (2,322)
SAFETY USER FEE	\$ (50,000)	\$ -	\$ -	\$ -	\$ (50,000)
TOTAL	\$ 76,414	\$ 686,015	\$ 23,393	\$ 68,203	\$ 854,025

EXHIBIT II-4
FY 2019 BUDGET AUTHORITY
FEDERAL RAILROAD ADMINISTRATION
(\$000)

ACCOUNT NAME	M / D	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
Safety and Operations	D	218,298	216,816	202,304
Railroad Research and Development	D	40,100	39,828	19,550
Track Research		11,279	11,202	6,000
Rolling Stock		10,322	10,252	5,760
Train Control & Communications		8,086	8,031	4,400
Human Factor		5,542	5,505	2,090
Railroad System Issues		4,871	4,838	1,300
Northeast Corridor Grants to the National Railroad Passenger Corporation	D	328,000	325,773	200,000
National Network Grants to the National Railroad Passenger Corporation	D	1,167,000	1,159,075	537,897
Consolidated Rail Infrastructure and Safety Improvements	D	68,000	67,538	-
Federal-State Partnership for State of Good Repair	D	25,000	24,830	-
Restoration and Enhancement Grants	D	5,000	4,966	-
Railroad Rehabilitation and Improvement Financing Program	M	1,809	100,371	-
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service (Cancellation)	D	-	-	(53,404)
Rail Line Relocation and Improvement Program (Cancellation)	D	-	-	(2,322)
Rail Safety User Fee	D	-	-	(50,000)
TOTAL:		1,853,207	1,939,197	854,025
[Mandatory]		1,809	100,371	-
[Discretionary]		1,851,398	1,838,826	854,025

EXHIBIT II-5
FY 2019 OUTLAYS
FEDERAL RAILROAD ADMINISTRATION
(\$000)

ACCOUNT NAME	M / D	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
Safety and Operations	D	205,624	219,000	166,000
Railroad Research and Development	D	37,303	41,000	40,000
Grants to the National Railroad Passenger Corporation	D	10,506	5,000	9,000
Northeast Corridor Grants to the National Railroad Passenger Corporation	D	321,411	326,000	203,000
National Network Grants to the National Railroad Passenger Corporation	D	1,160,473	1,157,000	541,000
Operating Grants to the National Railroad Passenger Corporation	D	-	-	-
Capital and Debt Service Grants to the National Railroad Passenger Corporation	D	267,687	62,000	5,000
Consolidated Rail Infrastructure and Safety Improvements	D	-	-	1,000
Federal-State Partnership for State of Good Repair	D	-	-	-
Restoration and Enhancement Grants	D	-	-	-
Railroad Safety Grants	D	34	16,000	14,000
Capital Assistance to States -- Intercity Passenger Rail Service	D	95	21,000	2,000
Northeast Corridor Improvement Program	D	-	1,000	3,000
Pennsylvania Station Redevelopment Project	D	11,675	2,000	8,000
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	D	2,578,699	302,000	82,000
Next Generation High-Speed Rail	D	1,379	1,000	-
Rail Line Relocation and Improvement Program	D	3,423	4,000	1,000
Railroad Safety Technology Program	D	1,413	5,000	-
Railroad Rehabilitation and Improvement Program - Program Account	D	87	1,000	-
Railroad Rehabilitation and Improvement Program - Program Account (Upward Reestimates)	M	1,809	101,000	-
TOTAL:		4,601,618	2,264,000	1,075,000
[Mandatory]		1,809	101,000	-
[Discretionary]		4,599,809	2,163,000	1,075,000

EXHIBIT II-6
SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
Federal Railroad Administration
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

FRA Total	FY 2017 Actual	FY 2018 Annualized CR	Annualization of 2018 Pay Raises	Annualization of 2018 FTE	Baseline Changes				FY 2019 Baseline Estimate	Program Increases/ Decreases	FY 2019 Request
					2019 Pay Raises	One More Compensable Days (261 days)	GSA Rent	WCF Increase/ Decrease			
PERSONNEL RESOURCES (FTE)											
Direct FTE	919	933	-	-	-	-	-	-	933	(6)	927
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Salaries and Benefits	128,810	131,755	62.6	-	-	508	-	-	132,889	(764)	132,125
Benefits for Former Employees (AK RR)	857	857	-	-	-	-	-	-	857	(7)	850
Travel	12,240	11,540	-	-	-	-	-	-	11,652	520	12,172
Transportation	150	152	-	-	-	-	-	-	154	-	154
GSA Rent	6,240	6,500	-	-	-	-	-	-	6,500	(300)	6,200
Communications, & Utilities	1,079	1,090	-	-	-	-	-	-	1,101	-	1,101
Printing	518	323	-	-	-	-	-	-	326	192	518
Advisory and assistance services	1,600	1,600	-	-	-	-	-	-	1,600	(950)	650
Other Services:	27,470	23,351	-	-	-	-	-	-	23,523	(9,948)	13,575
-WCF	9,429	9,421	-	-	-	-	-	1,065	10,486	-	10,486
-ESC	2,986	2,884	-	-	-	-	-	-	2,913	-	2,913
Supplies	390	394	-	-	-	-	-	-	397	-	397
Equipment	1,645	1,775	-	-	-	-	-	-	1,790	(200)	1,590
Admin Subtotal	193,414	191,642	62.6	-	-	508	-	1,065	194,188	(11,457)	182,731
PROGRAMS											
Safety & Operations	34,677	34,916	-	-	-	-	-	-	34,916	(10,616)	24,300
Research & Development	37,782	37,510	-	-	-	-	-	-	37,510	(18,998)	18,512
Amtrak	1,487,525	1,477,424	-	-	-	-	-	-	1,477,424	(743,216)	734,208
Rail Safety User Fee	-	-	-	-	-	-	-	-	-	(50,000)	(50,000)
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	-	-	-	-	-	-	-	-	-	(53,404)	(53,404)
Rail Line Relocation and Improvement Program	-	-	-	-	-	-	-	-	-	(2,322)	(2,322)
Consolidated Rail Infrastructure and Safety Improvements	68,000	67,538	-	-	-	-	-	-	67,538	(67,538)	-
Federal-State Partnership for State of Good Repair	25,000	24,830	-	-	-	-	-	-	24,830	(24,830)	-
Restoration and Enhancement Grants	5,000	4,966	-	-	-	-	-	-	4,966	(4,966)	-
Programs Subtotal	1,657,984	1,647,184	-	-	-	-	-	-	1,647,184	(975,890)	671,294
TOTAL	1,851,398	1,838,826	62.6	-	-	508	-	1,065	1,841,372	(987,347)	854,025

EXHIBIT II-6
SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
Federal Railroad Administration
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

Safety & Operations	FY 2017 Actual	FY 2018 Annualized CR	Annualization of 2018 Pay Raises	Annualization of 2018 FTE	2019 Pay Raises	Baseline Changes			FY 2019 Baseline Estimate	Program Increases/ Decreases	FY 2019 Request
						One More Compensable Days (261 days)	GSA Rent	WCF Increase/ Decrease			
Direct FTE	909	920	-	-	-	-	-	-	920	-	920
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Salaries and Benefits	127,310	130,025	618	-	-	501	-	-	131,144	-	131,144
Benefits for Former Employees (AK RR)	857	857	-	-	-	-	-	-	857	(7)	850
Travel	11,990	11,290	-	-	-	-	-	-	11,402	500	11,902
Transportation	150	152	-	-	-	-	-	-	154	-	154
GSA Rent	6,240	6,500	-	-	-	-	-	-	6,500	(300)	6,200
Communications, & Utilities	1,079	1,090	-	-	-	-	-	-	1,101	-	1,101
Printing	500	305	-	-	-	-	-	-	308	192	500
Other Services:	21,345	17,507	-	-	-	-	-	-	17,624	(6,757)	10,867
-WCF	9,429	9,421	-	-	-	-	-	1,065	10,486	-	10,486
-ESC	2,986	2,884	-	-	-	-	-	-	2,913	-	2,913
Supplies	390	394	-	-	-	-	-	-	397	-	397
Equipment	1,345	1,475	-	-	-	-	-	-	1,490	-	1,490
Admin Subtotal	183,621	181,900	618	-	-	501	-	1,065	184,376	(6,372)	178,004
PROGRAMS											
Automated Track Inspection Program	15,090	15,090	-	-	-	-	-	-	15,090	(5,590)	9,500
Confidential Close Call Reporting System	2,600	2,600	-	-	-	-	-	-	2,600	-	2,600
RSIS/DATA Management	4,300	4,300	-	-	-	-	-	-	4,300	(600)	3,700
Operation Lifesaver Grant	1,000	1,000	-	-	-	-	-	-	1,000	-	1,000
Washington Union Station	1,025	1,025	-	-	-	-	-	-	1,025	(25)	1,000
PTC Support	6,600	6,600	-	-	-	-	-	-	6,600	(3,600)	3,000
Drug and Alcohol Program	620	620	-	-	-	-	-	-	620	241	861
Southeast Rail Commission	1,000	1,000	-	-	-	-	-	-	1,000	(1,000)	-
Security, Other Security Grants	569	569	-	-	-	-	-	-	569	(14)	555
RSAC	190	319	-	-	-	-	-	-	319	-	319
Technical Training Standards Division	700	700	-	-	-	-	-	-	700	-	700
Transportation Technology Center (TTC)	390	500	-	-	-	-	-	-	500	(100)	400
Rail Enforcement System	593	593	-	-	-	-	-	-	593	(428)	165
Audit Management Program	-	-	-	-	-	-	-	-	-	500	500
Programs Subtotal	34,677	34,916	-	-	-	-	-	-	34,916	(10,616)	24,300
Rail Safety User Fee	-	-	-	-	-	-	-	-	-	(50,000)	(50,000)
TOTAL	218,298	216,816	618	-	-	501	-	1,065	219,292	(66,988)	152,304

EXHIBIT II-6
SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
Federal Railroad Administration
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

Railroad Research & Development	FY 2017 Actual	FY 2018 Annualized CR	Annualization of 2018 Pay Raises	Annualization of 2018 FTE	Baseline Changes				FY 2019 Baseline Estimate	Program Increases/ Decreases	FY 2019 Request
					2019 Pay Raises	One More Compensable Days (261 days)	GSA Rent	WCF Increase/ Decrease			
PERSONNEL RESOURCES (FTE)											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Salaries and Benefits	-	-	-	-	-	-	-	-	-	-	-
Travel	100	100	-	-	-	-	-	-	100	20	120
Advisory and assistance services	1,600	1,600	-	-	-	-	-	-	1,600	(950)	650
Transportation	-	-	-	-	-	-	-	-	-	-	-
GSA Rent	-	-	-	-	-	-	-	-	-	-	-
Communications, & Utilities	-	-	-	-	-	-	-	-	-	-	-
Printing	18	18	-	-	-	-	-	-	18	-	18
Other Services:	300	300	-	-	-	-	-	-	300	(150)	150
-WCF	-	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-	-
Equipment	300	300	-	-	-	-	-	-	300	(200)	100
Admin Subtotal	2,318	2,318	-	-	-	-	-	-	2,318	(1,280)	1,038
PROGRAMS											
Track Research Program	11,279	11,202	-	-	-	-	-	-	11,202	(5,202)	6,000
Rolling Stock Program	10,322	10,252	-	-	-	-	-	-	10,252	(4,492)	5,760
Train Control & Communications	8,086	8,031	-	-	-	-	-	-	8,031	(3,631)	4,400
Human Factors Program	5,542	5,505	-	-	-	-	-	-	5,505	(3,415)	2,090
Railroad System Issues	2,553	2,520	-	-	-	-	-	-	2,520	(2,258)	262
Programs Subtotal	37,782	37,510	-	-	-	-	-	-	37,510	(18,998)	18,512
TOTAL	40,100	39,828	-	-	-	-	-	-	39,828	(20,278)	19,550

Note: Railroad Research & Development's Administrative Expenses are part of the Railroad Systems Issues program.

EXHIBIT II-6
SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
Federal Railroad Administration
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

Antrak	FY 2017 Actual	FY 2018 Annualized CR	Annualization of 2018 Pay Raises	Annualization of 2018 FTE	Baseline Changes				FY 2019 Baseline Estimate	Program Increases/ Decreases	FY 2019 Request
					2019 Pay Raises	Compensable Days (261 days)	WCF Increase/ Decrease	GSA Rent			
	9	12	-	-	-	-	-	-	12	(5)	7
PERSONNEL RESOURCES (FTE)											
Direct FTE											
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Salaries and Benefits	1,500	1,730	8	-	-	7	-	-	1,745	(764)	981
Travel	150	150	-	-	-	-	-	-	150	-	150
Transportation	-	-	-	-	-	-	-	-	-	-	-
GSA Rent	-	-	-	-	-	-	-	-	-	-	-
Communications, & Utilities	-	-	-	-	-	-	-	-	-	-	-
Printing	-	-	-	-	-	-	-	-	-	-	-
Other Services:	5,825	5,544	-	-	-	-	-	-	55	(3,041)	2,558
-WCF	-	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-	-
Admin Subtotal	7,475	7,424	8	-	-	7	-	-	7,494	(3,805)	3,689
		7,424									
PROGRAMS											
Northeast Corridor Grants to Antrak	326,360	324,144	-	-	-	-	-	-	324,144	(125,144)	199,000
National Network Grants to Antrak	1,161,165	1,153,280	-	-	-	-	-	-	1,153,280	(618,072)	535,208
Programs Subtotal	1,487,525	1,477,424	-	-	-	-	-	-	1,477,424	(743,216)	734,208
TOTAL	1,495,000	1,484,848	8	-	-	7	-	-	1,484,918	(747,021)	737,897

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

	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
DIRECT:			
Safety and Operations	9,429	9,421	10,486
SUBTOTAL	9,429	9,421	10,486
TOTAL	9,429	9,421	10,486

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

	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
<u>DIRECT FUNDED BY APPROPRIATION</u>			
Safety and Operations	909	920	920
Capital Assistance for High-Speed and Intercity Rail	1	1	0
National Network Grants to Amtrak	9	12	7
 SUBTOTAL, DIRECT FUNDED	 919	 933	 927
 TOTAL FTEs	 919	 933	 927

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

	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
<u>DIRECT FUNDED BY APPROPRIATION</u>			
Safety and Operations	899	920	920
Capital Assistance for High-Speed and Intercity Rail	1	0	0
National Network Grants to Amtrak	9	12	7
 SUBTOTAL, DIRECT FUNDED	 <u>909</u>	 <u>932</u>	 <u>927</u>
 TOTAL POSITIONS	 <u>909</u>	 <u>932</u>	 <u>927</u>

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

**SAFETY AND OPERATIONS
APPROPRIATIONS LANGUAGE**

SAFETY AND OPERATIONS

For necessary expenses of the Federal Railroad Administration, not otherwise provided for, ~~\$218,298,000~~ \$202,304,000, of which \$15,900,000 derived from the general fund shall remain available until expended: *Provided*, That railroad safety fees collected in fiscal year 2019 as provided in section 152 of this Act, of which \$25,000,000 shall remain available until expended for railroad safety activities, shall be credited as offsetting collections to this account: *Provided further*, That the one-year portion of the sum herein appropriated from the general fund shall be reduced on a dollar-for-dollar basis as such offsetting collections are received during fiscal year 2019, so as to result in a final appropriation from the general fund estimated at \$152,304,000.

Explanation: The President's Budget proposes to impose a user fee that would reimburse the Federal Railroad Administration for the operational costs of rail safety inspectors and activities. Like other regulated industries, railroads benefit directly and indirectly from the government's efforts to ensure high safety standards, and it is therefore appropriate for railroads to bear some of the cost. FRA will begin collecting \$50 million in 2019.

EXHIBIT III-1
SAFETY AND OPERATIONS
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
Safety and Operations	218,298	216,816	202,304
Rail Safety User Fee	-	-	(50,000)
TOTAL	<u>218,298</u>	<u>216,816</u>	<u>152,304</u>
FTEs	909	920	920

Program and Performance Statement

Funds requested in the Safety and Operations account support the Federal Railroad Administration's (FRA) personnel and administrative expenses, the cost of rail safety inspectors, and other program activities including contracts. Resources are also provided to fund information management, technology, safety education, and outreach.

DETAILED JUSTIFICATION FOR RAILROAD SAFETY AND OPERATIONS

FY 2019 – Safety and Operations – Budget Request \$000

Account	FY 2017 Actual	FY 2018 Annualized CR	FY 2019 Request
Safety and Operations	218,298	216,816	152,304

What is this program and what does this funding level support?

The appropriation for the Safety and Operations (S&O) account funds nearly all of FRA's safety-related program activities, as well as FRA's personnel and administrative costs. FRA oversees, regulates, and enforces the safety of railroad operations nationwide. In addition, FRA supports the development of intercity passenger rail and freight rail services, as well as new technologies and investments to improve railroad safety and efficiency. FRA's S&O funding is the foundation to carrying out its mission of enabling the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future.

FRA's safety program aligns closely with the Department's key priorities for FY 2019:

- **Safety:** FRA's core focus is overseeing the safety of the nation's railroad system. Among other priorities, FRA continues to target resources at today's most pressing safety issues, including passenger railroad safety and those railroads' implementation of positive train control, grade crossing and pedestrian safety, and the hazards posed from transporting energy products, such as crude oil, ethanol, and liquefied natural gas.
- **Infrastructure:** As described below, FRA's inspector workforce and other safety specialists monitor the safety of the nation's railroad infrastructure, including track, bridges and tunnels, rolling stock, train control and communications systems, and grade crossings.
- **Innovation:** In collaboration with FRA's Research and Development account, FRA's S&O-funded programs are constantly innovating to implement new and transformative technologies that enhance safety, develop novel solutions to complex challenges, and better identify, collect, and analyze the information necessary to make data-driven decisions that advance FRA's mission.
- **Regulatory Reform:** FRA's S&O-funded personnel are working to address Administration goals to reduce regulatory burdens, effectively implement critical safety programs, and streamline the project development and delivery process.

FRA executes its regulatory and inspection responsibilities through a diverse staff of railroad safety experts, inspectors, and other professionals. Most of FRA's safety personnel work in the

field at locations across the nation where they directly interact with railroads and other stakeholders. The largest cadre of staff is railroad safety inspectors who specialize in five safety disciplines.

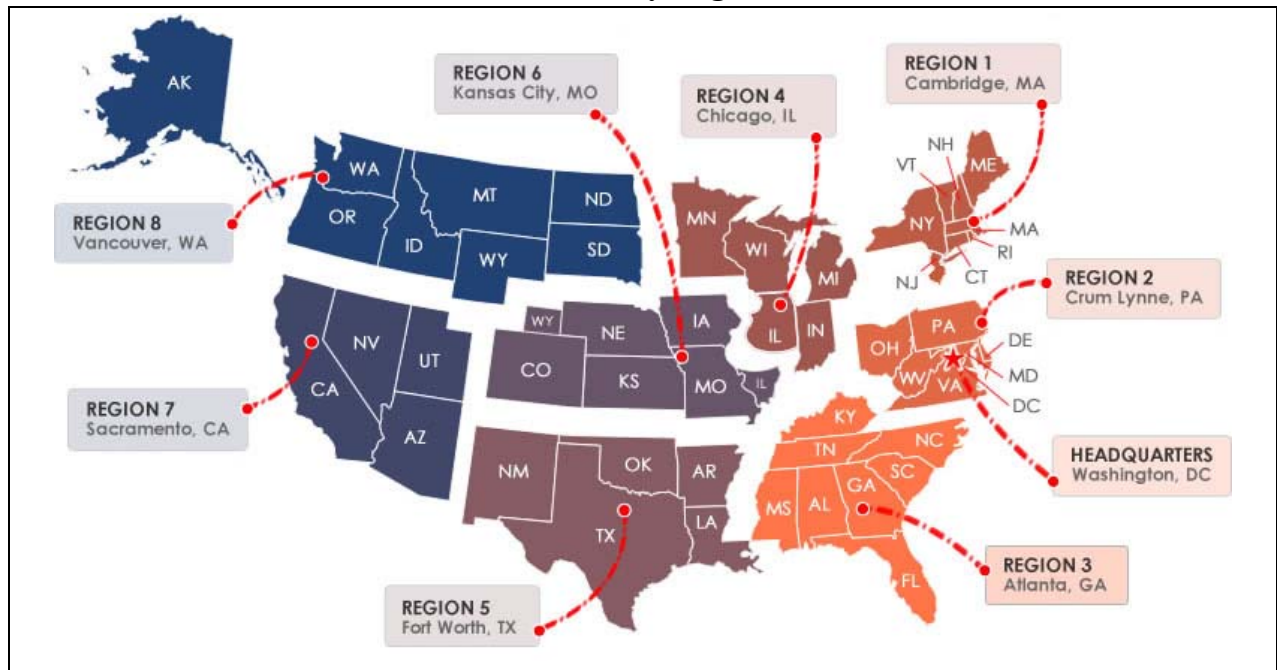
The President's Budget proposes to impose a user fee that would reimburse FRA for the operational costs of rail safety inspectors and activities. Like other regulated industries, railroads benefit directly and indirectly from the government's efforts to ensure high safety standards, and it is therefor appropriate for the railroads to bear some of the cost. FRA will begin collecting user fees in the amount of \$50 million starting in 2019.

Below is the planned distribution of rail safety inspectors in FY 2019 based on FRA's staffing allocation process and a map showing the territory of each region:

**Target Distribution of FRA FY 2019 Rail Safety Inspectors,
By Safety Discipline and Geographic Region**

Safety Discipline	FRA Region								Total
	1	2	3	4	5	6	7	8	
Motive Power and Equipment	7	13	12	14	12	10	7	8	84
Operating Practices	8	12	11	11	12	10	8	9	81
Track	9	11	12	9	13	9	8	10	81
Signal and Train Control	7	9	9	7	6	7	7	6	57
Hazardous Materials	4	8	9	9	11	8	5	9	63
Grade Crossing	3	3	3	3	3	3	3	3	24
Target Total	38	56	56	53	57	47	38	45	390

FRA Safety Regions



FRA’s field presence also includes program managers for highway-rail grade crossing safety, trespass prevention, rail and infrastructure integrity experts, positive train control specialists, bridge safety specialists, industrial hygienists, alcohol and drug program experts, tank car quality assurance specialists, radioactive materials specialists, and railroad safety oversight managers.

At FRA headquarters, the Office of Railroad Safety is composed of 16 divisions that serve as technical experts on matters of railroad safety, provide technical guidance to field personnel, and aid in the development of regulations and the evaluation of waiver submittals. These divisions manage the mission critical programs aimed at improving railroad safety. Below are descriptions of priority safety programs for FY 2019:

Automated Track Inspection Program (ATIP)

FY 2017 Actual: \$15.09 million

FY 2018 Annualized CR: \$15.09 million

FY 2019 Request: \$9.50 million

ATIP uses several vehicles equipped with track geometry measurement equipment to automatically measure track conditions such as gauge alignment and cross level. ATIP vehicles are strategically assigned to the most important routes, including those over which passengers and hazardous materials are transported. ATIP is a critical tool for FRA’s safety oversight program. The vision for the program is to provide objective information to target FRA safety oversight and enforcement activities, to audit railroads’ track safety compliance, and to determine the state-of-repair of the Nation’s railroads.

Through accurate, comprehensive, and objective automated inspections, ATIP supplements the work of FRA's inspectors to assure railroads are compliant with the FRA Track Safety Standards. ATIP provides information for risk-based planning to ensure inspection resources are used effectively. It also generates comprehensive infrastructure diagnostics to notify railroads of major safety risks, and it supports research that is used by the Railroad Safety Advisory Committee to improve FRA's track safety regulations.

Funding requested in FY 2019 will allow FRA to build off the ATIP fleet refresh conducted over previous years and deploy refurbished geometry cars and new track geometry systems to enhance data collection. FY 2019 will also represent the second full year of utilizing a second ATIP vendor, which has created a more dynamic environment to encourage the introduction of new detection technology, create competition to lower future costs, and position ATIP for future program improvements with enhanced capabilities.

Positive Train Control (PTC) Implementation

FY 2017 Actual: \$6.60 million

FY 2018 Annualized CR: \$6.60 million

FY 2019 Request: \$3.00 million

With limited exceptions and exclusions, the Rail Safety Improvement Act of 2008 required that railroads install and implement PTC by December 31, 2015. That date was extended by the Positive Train Control Enforcement and Implementation Act of 2015, which gives railroads until December 31, 2018 to implement PTC, and enables railroads to request from FRA an additional two years to December 31, 2020 if certain criteria are met. PTC must be used on Class I railroad main lines with over 5 million gross tons of traffic annually that transport any quantity of poisonous- or toxic-inhalation hazard commodity, and on any railroad's main lines over which regularly scheduled intercity passenger or commuter rail services are operated. Approximately 40 railroads are subject to the mandate.

By statute, each railroad subject to the PTC mandate was required to submit to FRA a revised PTC implementation plan by January 27, 2016 outlining how the system would be built and by regulation, a safety plan that details how the railroad's PTC system would function once installed and operational. FRA's role is to monitor and enforce compliance with the revised implementation plans and applicable statutes and regulations (including issuing penalties), review and approve safety plans, and provide on-going technical assistance. To conduct these functions, FRA relies on contractor support, including firms with specialized knowledge in advanced railroad signal technology.

Data Management/Railroad Safety Information System

FY 2017 Actual: \$4.30 million

FY 2018 Annualized CR: \$4.30 million

FY 2019 Request: \$3.70 million

To carry out its mission, FRA must collect and analyze significant amounts of safety-related information. This information allows FRA to not only enforce current safety regulations that

have data collection requirements, such as the National highway-rail crossing inventory and accident/incident/injury reporting, but it also directly supports implementation of proposed rulemakings that have data collection elements, such as risk reduction and system safety programs. This safety information is publicly available to support not only the FRA's efforts, but also to states, railroads and other stakeholders for use in conducting safety analyses and planning.

An example of frequently used data is the Web Accident Prediction System (WBAPS) located on FRA's Safety data website.¹ WBAPS allows the user to run dynamic queries and view statistical information on railroad safety. For example, a user can generate reports listing public highway-rail crossings for a specific State, County, City or railroad ranked by predicted collisions per year, taking into account the past 10 years of activity, to assist in determining where scarce highway-rail grade crossing resources can best be directed, ultimately improving the safety at these intersections.

FRA will continue to pursue opportunities when possible to enhance its data management system by increasing the capabilities of the current platform for collecting, tracking, analyzing, and reporting electronic data submissions; evaluating the effectiveness of collected data; and ensuring compliance with new regulations. Further, FRA will continue to collaborate with the Federal Highway Administration (FHWA) and National Highway Traffic Safety Administration (NHTSA) to share pertinent data. In addition, FRA will leverage NHTSA's Corporate Information Factory – an enterprise level data warehouse, business intelligence, and analytics platform – to potentially analyze railroad safety data sets. The potential combination of a larger universe of data and advance analytics capabilities will improve FRA's asset allocation and enforcement prioritization.

Confidential Close Call Reporting System (C³RS)

FY 2017 Actual: \$2.60 million

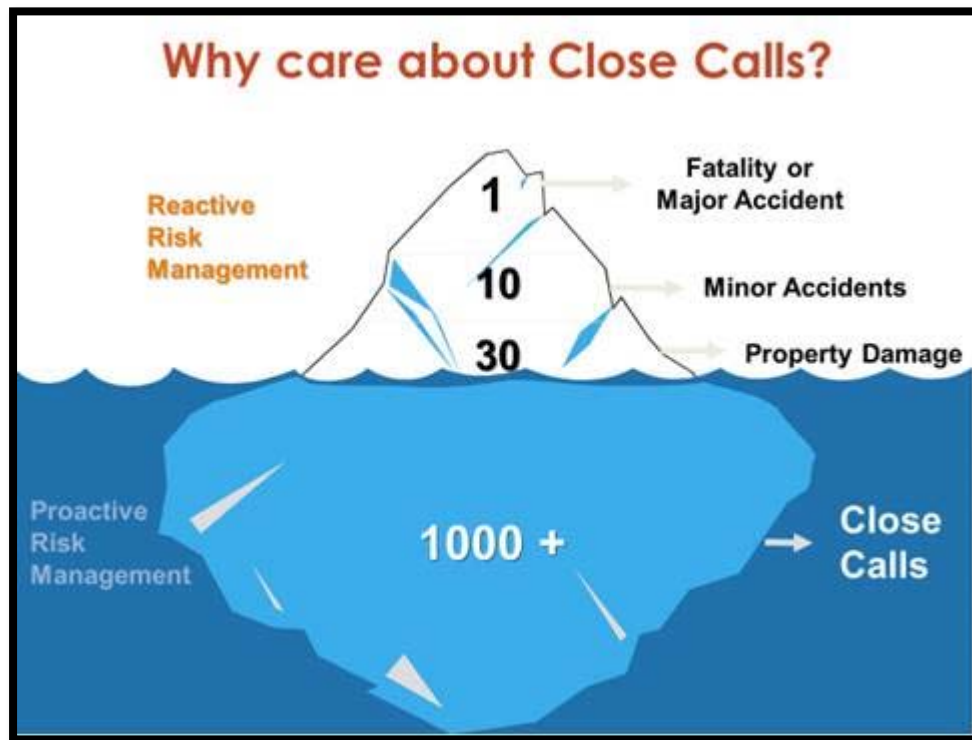
FY 2018 Annualized CR: \$2.60 million

FY 2019 Request: \$2.60 million

This program enables railroad employees to report near misses anonymously. The anonymity is critical because it alleviates employees' fear of retribution. The data is collected and de-identified by a third party for use by participating railroads' peer review teams. The data provides insights into potential systemic problem areas before accidents occur, which is central to FRA's push for continuous safety improvement. The figure below illustrates the potential value of the information collected in the C³RS program. As part of a proactive approach to reducing accidents, injuries, and fatalities through continuous identification, evaluation and management of safety risks, FRA personnel actively work with eight railroads (covering over 21,000 railroad employees) to analyze risks, identify hazards, and put in place customized plans for railroads to eliminate those risks. Results from C³RS pilot sites indicate significant improvements in many safety categories including a 41% reduction in human

¹ <https://safetydata.fra.dot.gov/webaps/>

factor incidents and a 53% reduction in human factor incident related costs at one site and a 27% reduction in reportable incidents along with an 18% reduction in injuries at another.



Source: FRA

Notes:

- Most organizations have no record of events below the water line
- C3RS captures the information below the water line so that safety actions can take place to prevent similar events, thus decreasing accidents and injuries

Grade Crossing Safety (including Operation Lifesaver)

FY 2017 Actual: \$1.00 million

FY 2018 Annualized CR: \$1.00 million

FY 2019 Request: \$1.00 million

As of November 2017, there are 130,199 public highway-rail grade crossings located throughout the United States. Each crossing presents potential for a collision between a train and highway vehicle. A motorist is 20 times more likely to die from a collision with a train than any other vehicle it may encounter. Collisions at highway-rail grade crossing intersections are the second leading cause of rail-related fatalities, accounting for approximately one-third of all such fatalities.

FRA provides annual funding to Operation Lifesaver, Inc., a national, non-profit organization that is dedicated to reducing the number of highway-rail grade crossing collisions and trespassing incidents. Operation Lifesaver, Inc. utilizes these funds to conduct public outreach and educational programs, and increase law enforcement partnerships. FRA also provides funding to enable active or retired law enforcement officers to raise awareness on

the importance of enforcing traffic laws at highway-rail grade crossings and trespassing laws on railroad rights-of-way.

Washington Union Station (WUS)

FY 2017 Actual: \$1.02 million

FY 2018 Annualized CR: \$1.02 million

FY 2019 Request: \$1.00 million

As the Congressionally appointed owner of Washington Union Station (WUS), FRA's Office of Railroad Safety is responsible for carrying out the duties of the Authority Having Jurisdiction (AHJ). As the AHJ for WUS, FRA is required to ensure compliance with applicable building codes and fire life safety codes and requirements. To perform these duties, FRA must contract for specialized knowledge in the areas of building code compliance and inspection, as well as knowledge in the area of fire life safety codes and inspections. The function of the AHJ will be to conduct periodic oversight inspections of WUS, review drawings and plans of new construction initiatives being contemplated at WUS, provide input to ensure code compliance, and to inspect any repair work done at WUS to ensure compliance with applicable building and fire life safety codes.

Audit Management Program

FY 2017 Actual: \$0

FY 2018 Annualized CR: \$0

FY 2019 Request: \$0.50 million

Certain federal regulations require railroads to create and implement performance-based plans. FRA will continue to develop an Audit Management Program to devise standard audit methods for FRA's inspection forces to ensure regulatory requirements are enforced consistently and audit results across the nation are comparable. This program will use risk assessments for noncompliance with regulations to prioritize the frequency and focus of audits of all required plans and the railroads' compliance with such plans. This comprehensive program will also include a central repository of the latest version of each submitted plan, audit results tracking, and the status of railroads' efforts to achieve compliance.

Transportation Technology Center (TTC)

FY 2017 Actual: \$0.39 million

FY 2018 Annualized CR: \$0.50 million

FY 2019 Request: \$0.40 million

Since its establishment in the 1970s, TTC has been a vital resource in FRA's and the railroad community's pursuit of safer, more reliable, and more efficient rail services. Through FRA's unique partnership with the Association of American Railroads' subsidiary, Transportation Technology Center, Inc., TTC has matured, evolved, and prospered. The partnership has a robust multi-year research and development program in place. Recently, FRA began offering

technical training at TTC for its inspectors, safety specialists, and the state employees in FRA's State Participation Program for rail safety inspectors. Co-locating training and research and development provides inspectors and safety specialists opportunities for hands on learning with rail technology, which is unavailable in traditional classroom settings.

Now into its fifth decade, TTC consists of 15 buildings, almost 50 structures, multiple laboratories, and hundreds of test devices and equipment on more than 50 square miles in Colorado. Some assets are new and in good condition, while others have exceeded their useful lives or fallen into disrepair.

In support of the aforementioned programs and FRA's overall safety priorities, FRA will continue to pursue innovative approaches to make new safety gains. FRA will employ strategies in FY 2019 to proactively identify and mitigate safety hazards before an incident can occur and utilize enhanced technology systems to improve safety:

Safety Hazard Identification and Mitigation

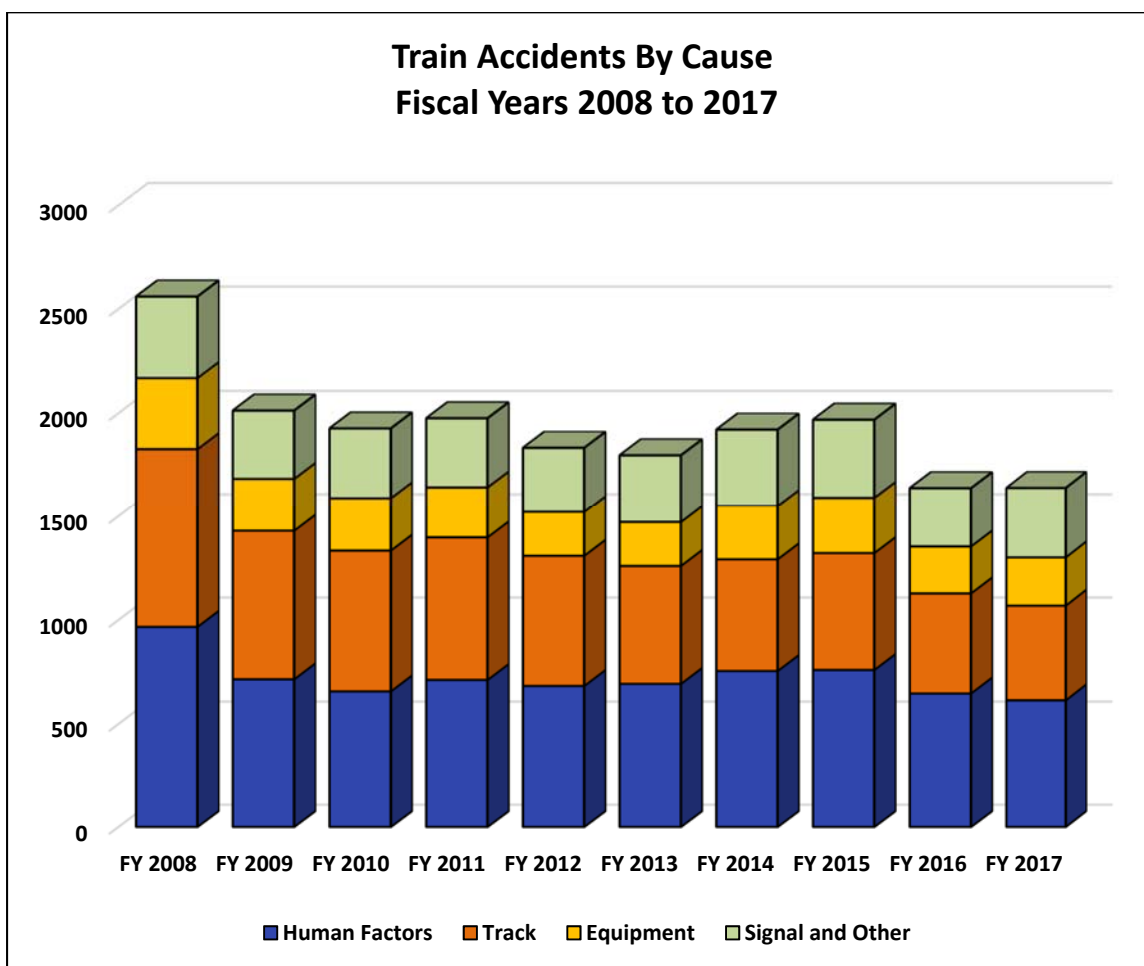
The Railroad Safety Improvement Act of 2008 mandates the implementation of System Safety and Risk Reduction programs on all passenger, commuter, and major freight railroads. These programs are designed to identify and address safety hazards that cannot be or are not addressed by existing regulations. The programs are also designed to assist railroads in the development of appropriate safety cultures on their properties. These are process-based endeavors that will need to be monitored by FRA to ensure that appropriate methods are being utilized by railroads implementing these programs. In FY 2019, FRA will be required to review and approve the processes of these railroads and ensure that the processes are being followed. These types of programs will improve safety in areas that FRA is not able to address through traditional command and control type regulations.

Use of Enhanced and Innovative Technologies

FRA will continue to utilize and promote the use of advanced rail and equipment inspection technology by both FRA in its oversight inspection and accident investigation activities and by the rail industry to improve the effectiveness and efficiency of inspection practices. This work will include: the continued use and development of rail integrity and rail geometry car inspection equipment; the development and use of handheld inspection technologies by FRA inspectors; the development, use, and oversight of way-side inspection technologies that produce effective and efficient inspection of rolling stock; the continued development of passenger equipment design to facilitate high-speed rail operations; the development and use of enhanced grade-crossing technologies; and other emerging technologies (such as drones) to improve the safety and efficiency of the national rail network.

What benefits will be provided to the American public through this request and why is the program necessary?

FRA's top priority is safety. In order to continue serving as a driver of the U.S. economy and meet the nation's passenger and freight mobility needs, America's railroads must be safe. FRA's enforcement, oversight, and technical assistance efforts contributed to FY 2017 being one of the safest years in recent record, with total accidents and incidents minimally increasing 1.5 percent from FY 2016 to FY 2017 alone, and decreasing 14 percent overall since FY 2008. In addition, from FY 2008 to FY 2017, total derailments declined by 35 percent, railroad industry employee fatalities declined by 51 percent, and total highway-rail grade crossing incidents have declined by 18 percent. However, FRA must remain diligent and examine new approaches to advance continuous safety improvement in the railroad industry.



Source: FRA data.

FRA's programs and activities provide significant safety benefits to the public. The President's FY 2019 Budget continues to target FRA's resources at today's most pressing rail safety issues, including:

- **Passenger Railroad Safety:** Compliance monitoring and technical assistance for commuter and intercity passenger railroads in the deployment of positive train control technology and other safety improvements;
- **Grade Crossings and Pedestrian Safety:** Collision prevention technologies and motor vehicle driver awareness about highway-rail grade crossing dangers;
- **Energy Products:** Hazards from large volumes of crude oil and other energy products, including ethanol and liquefied natural gas, moving by rail; and
- **Drug and Alcohol Program:** Compliance monitoring of the implementation of all Federal regulations related to the testing of railroad personnel for drug and alcohol use.

Passenger Railroad Safety

Americans take more than 500 million railroad passenger trips annually. Protecting the safety and minimizing risks for these passengers, as well as railroad crews, is a top priority of FRA. The May 12, 2015 Amtrak Train 188 accident in Philadelphia, Pennsylvania and the December 18, 2017 Amtrak Train 501 accident in Dupont, Washington both highlight and further underscore that FRA still has hard work ahead to make rail transportation as safe as possible, particularly when technology exists that can prevent some of the most tragic accidents.

Positive Train Control technology is the single most important railroad safety technological development in more than a century. Certification of the PTC system prior to railroad use is a statutory requirement levied by Congress in the Rail Safety Improvement Act of 2008 and the Positive Train Control Enforcement and Implementation Act of 2015. This process, alone, requires a significant resource pool of subject matter experts concentrated in a relatively short timeframe. To date, FRA has received and reviewed only 9 out of approximately 40 railroads' PTC safety plans. Based on current railroad schedules, FRA anticipates receiving 15-25 PTC safety plans in FY 2018 and an additional 6-15 PTC safety plans in FY 2019. FRA requires the continued use of contract support staff to assist with monitoring railroads' compliance with their implementation plans and its associated enforcement responsibilities, as identified in the Positive Train Control Enforcement and Implementation Act of 2015. This support is essential to providing the program management support necessary to allow internal experts to focus on the critical technical matters of PTC test monitoring and system certification.

Grade Crossing and Pedestrian Safety

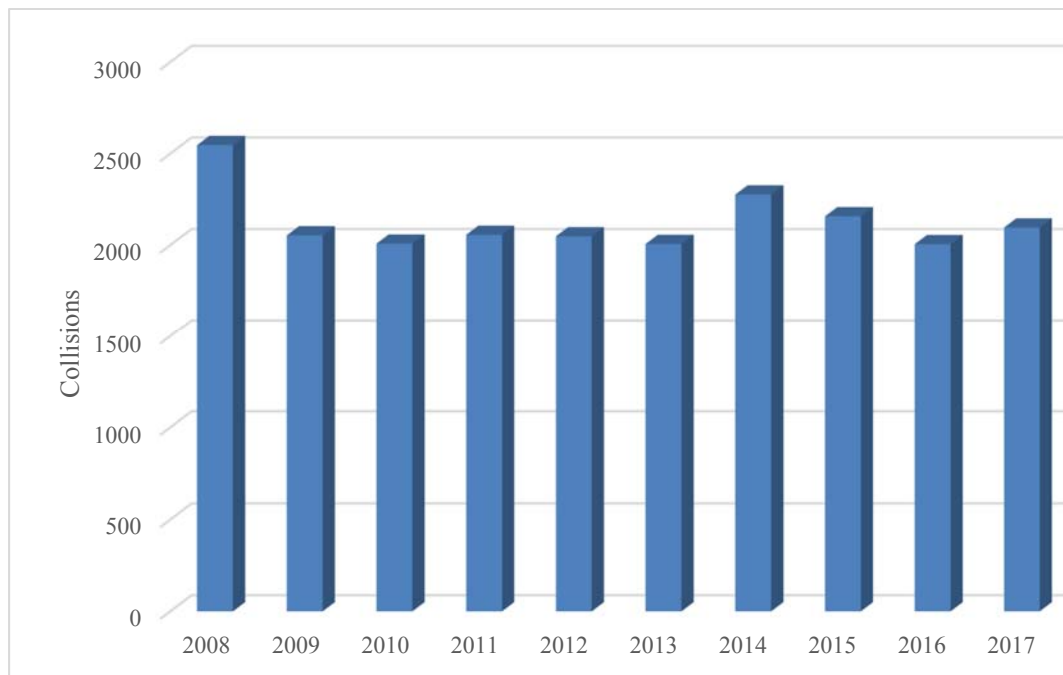
From FY 2008 to FY 2017, the number of highway-rail grade crossing incidents and related fatalities has decreased by 18 percent and 17 percent, respectively. However, highway-rail grade crossing incidents are the second leading cause of rail-related deaths and the top cause of all railroad accidents. FRA expects the risk of highway-rail grade crossing incidents to grow as both train and highway traffic increase during the next decade.

868 people died in rail related accidents and incidents in FY 2017

245 were from **highway-rail grade crossing collisions**

590 were from **trespasser incidents**

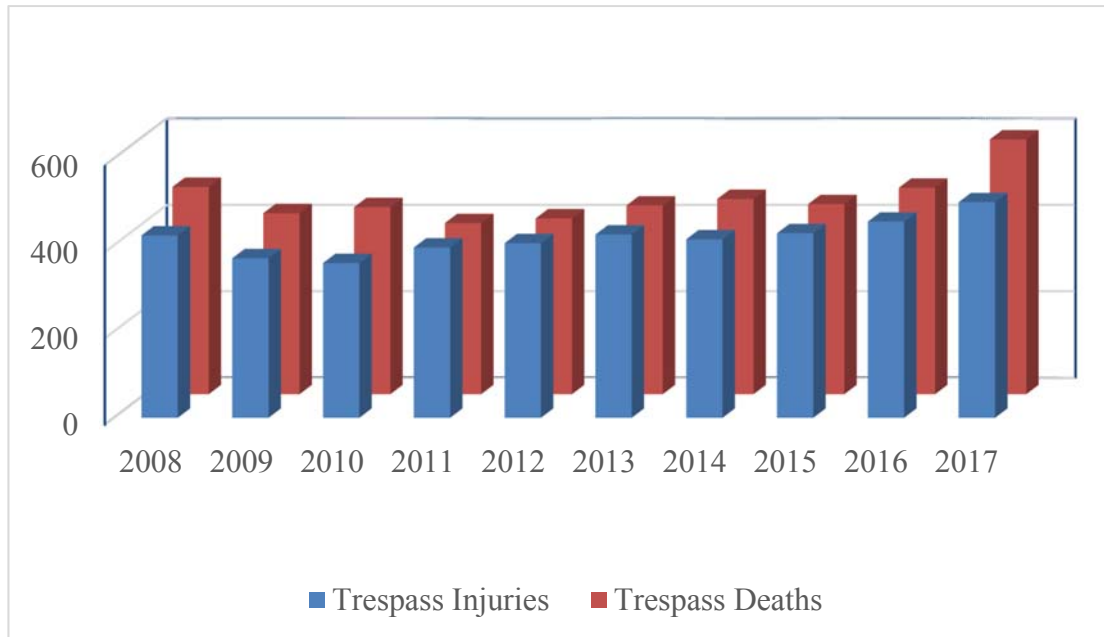
**Highway-Rail Grade Crossing Incidents
Fiscal Years 2008 to 2017**



Source: FRA data

There was an average of 453 trespasser fatalities per year between FY 2008 and FY 2017. Notably, recent years have shown a disturbing trend as trespasser fatalities increased 34 percent from FY 2015. Highway-rail grade crossing and trespasser fatalities are the leading cause of rail-related deaths and accounted for 96 percent of all rail-related fatalities in FY 2017. FRA staff works closely with local communities and railroads on trespass prevention efforts by providing technical assistance and educating communities about risks.

Trespasser Injuries and Fatalities, Fiscal Years 2008 to 2017



Source: FRA data

Safe Transportation of Energy Products

The transportation of energy products (crude oil and ethanol) by rail increased significantly over the last decade as our nation has become more energy independent. The volume of these commodities moving by rail has increased by approximately 430% from 170,000 car loads (466 per day) in 2007, to approximately 900,000 car loads (2,466 per day) at the highest point in 2014. Due to increased pipeline capacity, the annual volume of crude oil transported by rail has declined, but it is estimated that the number of shipments of crude oil and ethanol will remain steady at approximately 500,000 shipments per year (1,370 per day). This volume, along with increased shipments of other energy related products such as Liquefied Petroleum Gas (LPG) and Liquefied Natural Gas (LNG), continue to pose increased risks in transportation.

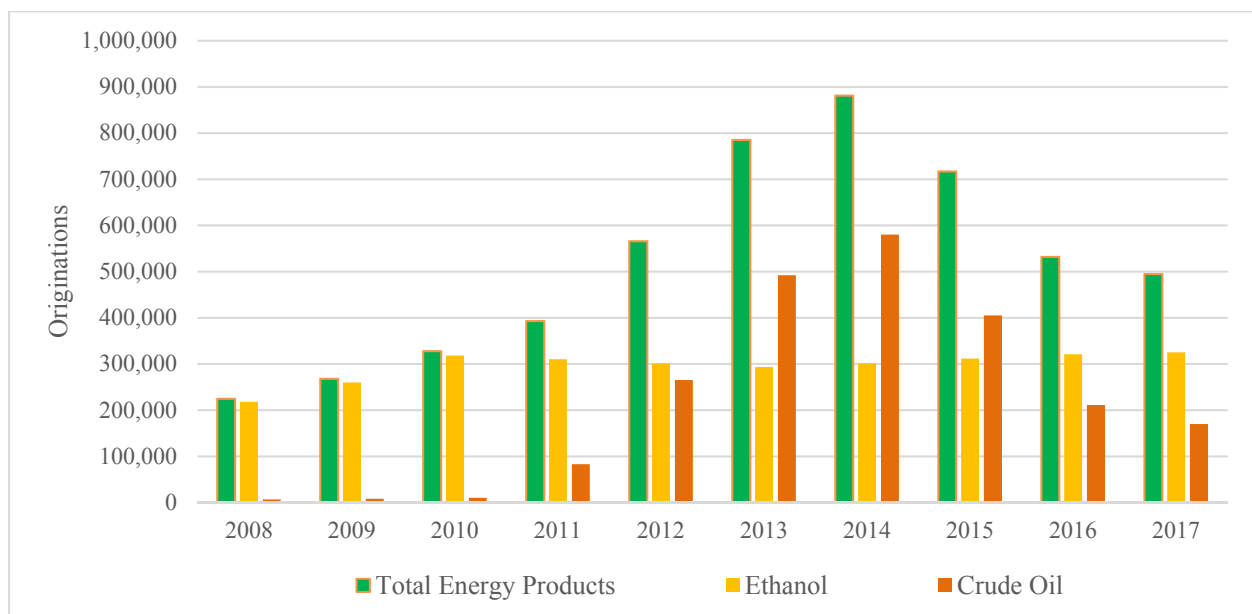
These energy products are shipped to refineries and other customers all across our nation, and represent approximately 55% of all hazardous materials shipments by rail. The safety and environmental risks posed by these shipments continue to be a significant concern across the country as communities along energy product routes prepare their emergency plans. These concerns are based on the knowledge gained from the limited number of significant accidents involving energy product shipments in the United States and Canada.

In the past 5 years, there have been five significant accidents in which crude oil was unintentionally released in the United States, and two in Canada. Moreover, the consequences of an accident involving crude oil can be catastrophic. The single accident in Lac-Mégantic, Quebec, killed 47 people.

Since the Lac-Mégantic derailment on July 6, 2013, there have been 22 subsequent train accidents in the United States involving trains carrying energy products. These incidents resulted in the unintentional release of significant amounts of these commodities which impacted the environment, or have been catastrophic due to the loss of life and significant property damage.

In response to the hazards posed by these commodities, the Department is continuing to pursue its holistic, all-of-the-above approach to ensure the safe movement of energy products across our nation. The Department believes this approach continues to enhance the integrity of tank cars used to transport hazardous materials, strengthen the safety requirements of rail operations, improve the safety of the product itself, and support the emergency response community in preparing for rail emergencies.

**North American Originations of Energy Products,
Crude Oil and Ethanol
Calendar Years 2008 to 2017**

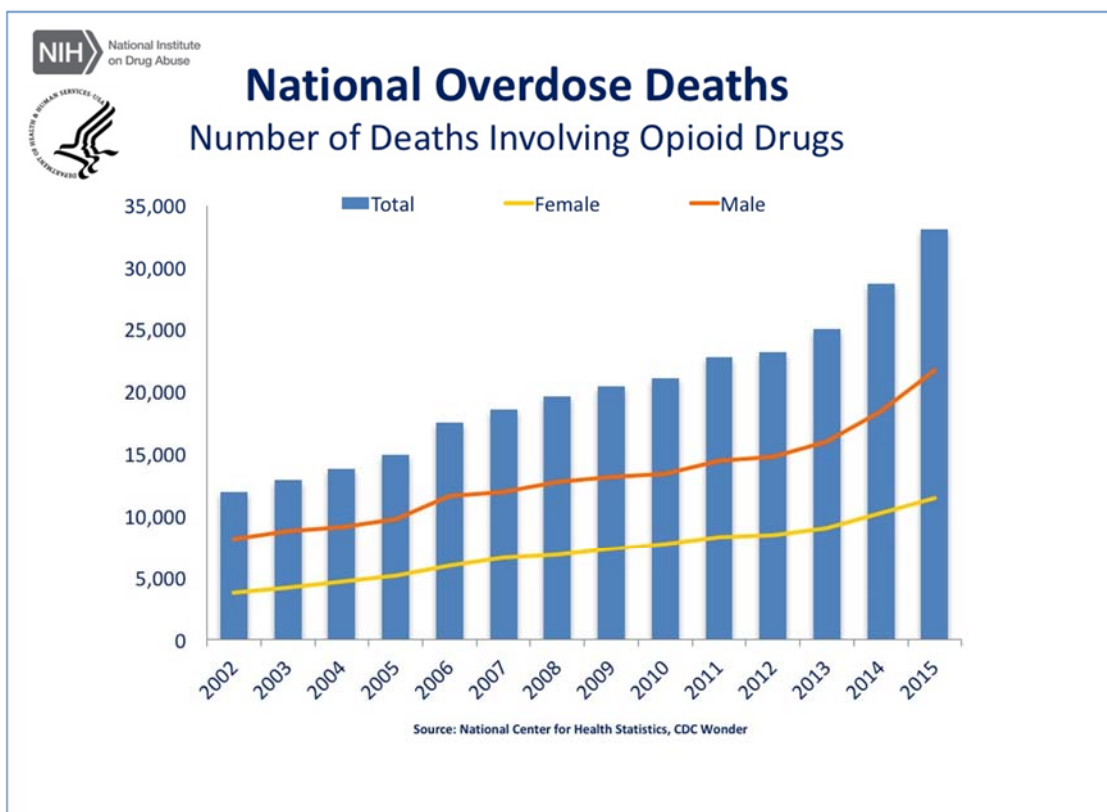


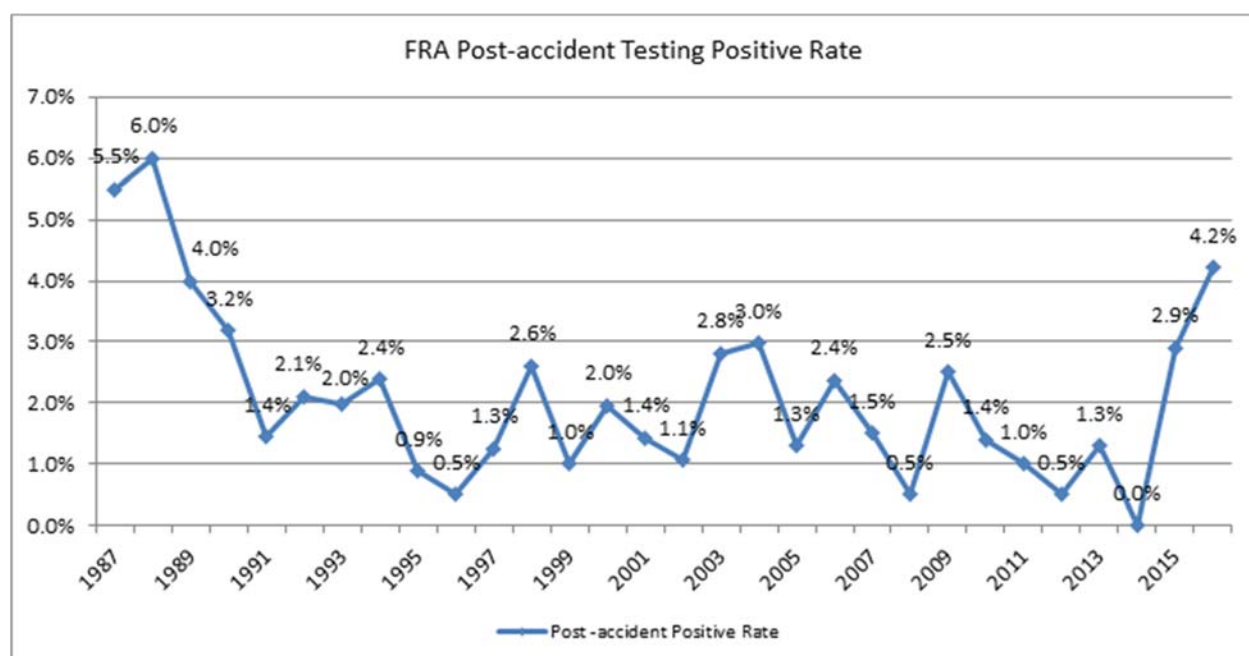
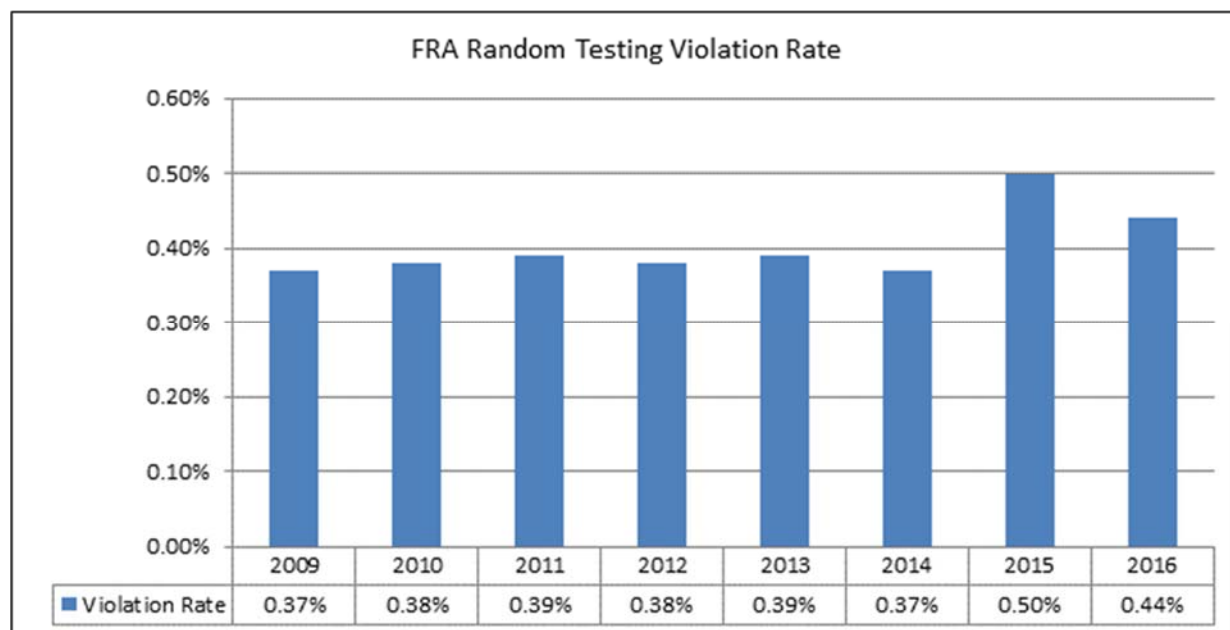
Drug and Alcohol Use

In May 2016, FRA issued a final rule to broaden the scope of its drug and alcohol testing regulation to cover maintenance-of-way (MOW) employees. These new requirements went into effect in June 2017, resulting in over 34,000 MOW employees performing track construction and maintenance duties being added to the FRA Drug & Alcohol (D&A) testing program. This rulemaking has increased FRA's testing case load, oversight, and technical assistance responsibilities. FRA has added over 3,000 track construction and maintenance employers, many whom are small businesses and provide disadvantaged business enterprise services for

public commuter rail agencies. \$100K in funding would support the additional analysis and development of a railroad *D&A testing expert peer review program* to get the best practices and experience from the highly functioning Class I freight railroads to some of the more challenged but very high profile commuter railroad programs.

Complicating the addition of the MOW craft to testing applicability is that it occurs in the midst of a major on-going opioid/prescription drug national epidemic and rising positive rates amongst FRA's currently covered railroad hours-of-service employees. While FRA currently tests for nine synthetic opioids in the FRA *post-accident* testing panel, the standard Department of Health and Human Services(HHS)/ Department of Transportation (DOT) testing panel used for *random testing* does not cover those medications, translating into little detection nor deterrence of prescription medication abuse. Four synthetic opioids (including brand name medications such as OxyContin, Percocet, Dilaudid, and Vicodin) have been added to the standard HHS/DOT test in January 2018 to help combat the on-going opioid epidemic. This test change will further increase the FRA testing positive case load, oversight, and technical assistance responsibilities referred to above. The following are trend charts of the national opioid epidemic as well as the FRA D&A random and post-accident positive rate trends:





**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
SAFETY AND OPERATIONS (69-0700)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0700-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Salaries and expenses	206,335	207,000	151,000
0002	Activity from RRIF Collections	861	-	-
0006	Alaska Railroad Liabilities	857	1,000	1,000
0100	Total direct program	208,053	208,000	152,000
0799	Total direct obligations	208,053	208,000	152,000
0801	Reimbursable services	1,464	1,000	1,000
0802	Railroad Safety User Fee	-	-	50,000
0900	Total new obligations	209,517	209,000	203,000
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	10,600	19,000	28,000
1021	Recoveries of prior year unpaid obligations	742	-	-
1050	Unobligated balance (total)	11,342	19,000	28,000
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	218,298	217,000	152,000
1131	Unobligated balance of appropriations permanently reduced	-	-	-
1160	Appropriation, disc (total)	218,298	217,000	152,000
	Spending authority from offsetting collections, discretionary:			
1700	Collected	1,536	1,000	51,000
1750	Spending auth from offsetting collections, disc (total)	1,536	1,000	50,000
1900	Budget authority (total)	219,634	218,000	203,000
1930	Total budgetary resources available	230,977	237,000	231,000

Account
Number: 69-0700-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Memorandum (non-add) entries:			
1940	Unobligated balance expiring	(2,690)	-	-
1941	Unexpired unobligated balance, end of year	19,484	28,000	28,000
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	62,109	72,000	61,000
3001	Adjustments to unpaid obligations, brought forward, Oct 1			
3010	Obligations incurred, unexpired accounts	208,802	209,000	203,000
3011	Obligations incurred, expired accounts	715	-	-
3020	Outlays (gross)	(207,172)	(220,000)	(217,000)
3030	Obligations incurred, unexpired accounts	-	-	-
3031	Unpaid obligations transferred from other accts [70-0413]	10,000	-	-
3040	Recoveries of prior year unpaid obligations, unexpired	(742)	-	-
3041	Recoveries of prior year unpaid obligations, expired	(1,672)	-	-
3050	Unpaid obligations, end of year (gross)	72,040	61,000	47,000
3060	Uncollected pymts, Brought Forward			
3071	Change Uncollected pymts			
3100	Obligated balance, start of year (net)	62,109	72,000	61,000
3200	Obligated balance, end of year	72,040	61,000	47,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	219,634	218,000	203,000
	Outlays, gross:			
4010	Outlays from new discretionary authority	169,285	190,000	183,000
4011	Outlays from discretionary balances	37,887	30,000	34,000
4020	Outlays, gross (total)	207,172	220,000	217,000
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	(1,462)	(1,000)	(1,000)
4033	Non-Federal sources	(87)	-	(50,000)
4034	Offsetting governmental collections	-	-	-

Account
Number: 69-0700-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
4040	Offsets against gross budget authority and outlays, disc (total)	(1,549)	(1,000)	(51,000)
4070	Budget authority, net (discretionary)	218,098	217,000	152,000
4080	Outlays, net (discretionary)	205,624	219,000	166,000
4180	Budget authority, net (total)	218,098	217,000	152,000
4190	Outlays, net (total)	205,624	219,000	166,000

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

**RAILROAD RESEARCH AND DEVELOPMENT
APPROPRIATIONS LANGUAGE**

RAILROAD RESEARCH AND DEVELOPMENT

For necessary expenses for railroad research and development, ~~\$40,100,000~~
\$19,550,000, to remain available until expended.

EXHIBIT III-1
RAILROAD RESEARCH AND DEVELOPMENT
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

	FY 2017	FY 2018	FY 2019
	ACTUAL	ANNUALIZED	REQUEST
		CR	
Track	11,279	11,202	6,000
Rolling Stock	10,322	10,252	5,760
Train Control and Communication	8,086	8,031	4,400
Human Factors	5,542	5,505	2,090
Railroad Systems Issues	4,871	4,838	1,300
TOTAL	40,100	39,828	19,550
FTEs	-	-	-

Program and Performance Statement

FRA's Research and Development Program is focused on improving railroad safety. It provides scientific and engineering support for the agency's safety enforcement and regulatory rulemaking efforts. It also identifies and develops emerging technologies for the rail industry to adopt voluntarily. The outcomes of the research and development are reduced railroad accidents and incidents. The program also supports intercity passenger rail development by providing technical assistance, equipment specifications, proposal evaluations, and Buy America compliance research. The focus of FRA's program is to fill the gaps in research not taken on by industry itself, and to partner with industry to leverage private R&D investment in a manner that ensures broader public safety benefits are achieved.

In addition to improving safety, the program contributes significantly towards activities to achieve and maintain a state of good repair and promote job creation and economic growth.

The program has the following areas of research:

- **Track Program** – Reducing derailments due to track-related causes.
- **Rolling Stock Program** – Reducing derailments due to equipment failures, minimizing the consequences of derailments, and minimizing hazardous material releases.

- **Train Control and Communication Program** – Reducing train-to-train collisions and train collisions with objects on the line and at grade crossings.
- **Human Factors Program** – Reducing accidents caused by human error.
- **Railroad System Issues Program** – Prioritizing R&D projects on the basis of relevance to safety risk reduction and other Department goals.

DETAILED JUSTIFICATION FOR RAILROAD RESEARCH AND DEVELOPMENT

FY 2019 - Railroad Research and Development - Budget Request \$000

Program Activity	FY 2017 Actual	FY 2018 Annualized CR	FY 2019 Request
Track	11,279	11,202	6,000
Rolling Stock	10,322	10,252	5,760
Train Control and Communication	8,086	8,031	4,400
Human Factors	5,542	5,505	2,090
Railroad Systems Issues	4,871	4,838	1,300
TOTAL	40,100	39,828	19,550

What is this program and what does this funding level support?

The mission of FRA's Research and Development (R&D) program is to enable the safe, reliable, and efficient movement of people and goods by rail through basic and applied research and development of innovations and solutions. FRA's R&D program aligns closely with the Department's key priorities for FY 2019:

- **Safety:** FRA's R&D efforts provide the scientific and engineering basis for safety enforcement, regulatory reform, and non-regulatory safety initiatives.
- **Infrastructure:** FRA's R&D program advances safety and performance of three types of railroad infrastructure – track, rolling stock, and train control and communications systems – while mitigating human factors risks to optimize the use of infrastructure through safe and efficient operations.
- **Innovation:** Historically, FRA's R&D program has invented new technologies that transformed railroad safety inspection, passenger rail crashworthiness, and railroad automation. The FY 2019 proposal continues investment in the next generation of transformative technologies.
- **Regulatory Reform:** The findings and analyses resulting from FRA's R&D program give FRA's safety program the data necessary to embrace new technologies and innovations that facilitate the shift from prescriptive regulations to performance-based approaches in order to achieve equal or greater safety outcomes with more flexibility and at lower cost.

Work undertaken in the past 5 to 10 years contributes to today's safety performance. R&D projects typically follow one of three paths to implementation:

1. **Voluntary Industry Adoption:** R&D by FRA is necessary for conducting higher-risk and longer-term projects, which private industry would not otherwise undertake, to develop advanced technologies and practices. In many cases, industry voluntarily adopts these safety practices and technology without the need for regulation.
2. **Compliance:** R&D by FRA creates new technology for efficient and effective oversight of railroad compliance with minimum safety standards and requirements.
3. **Regulation:** R&D by FRA is necessary to develop the scientific and engineering foundation for valid, data-driven, and performance-based regulations and deregulatory actions.

FRA's R&D program is organized around the following five rail safety disciplines:

- **Track Program**
 - Track and structure inspection techniques, material and component reliability, design, and performance
 - Track and train interaction, derailment mechanisms, and vehicle-track performance
 - Rail integrity related derailments and rail inspection systems
 - Track safety standards for freight and passenger operations
 - R&D facilities at the Transportation Technology Center (TTC) managed through a public-private partnership
- **Rolling Stock Program**
 - Rolling stock and components, onboard and wayside monitoring systems, material and design improvements
 - Hazardous materials transportation risk reduction, tank car damage assessment, inspection, and integrity
 - Safety and clean energy benefits of rolling stock technologies
 - Train occupant protection, locomotive, and passenger car safety and performance
- **Train Control and Communication Program**
 - Development and testing of train control and communication systems
 - Grade crossing safety technologies and pilot studies, including intelligent rail systems, blocked crossings, and trespass prevention
- **Human Factors Program**
 - Research into fatigue distraction, attention and situational awareness, and ergonomics
 - Usability studies of automation and new technology
 - Trespass and suicide prevention
 - Studies of motorist behavior at highway-rail grade crossings
 - Short Line Safety Institute program development and support

- Stakeholder needs assessments and collaboration
- **Railroad System Issues Program**
 - Safety risk analysis and performance-based regulations
 - Railroad environmental issues and locomotive efficiency research
 - Railroad automation research
 - Rail Safety IDEA (Innovations Deserving Exploratory Analysis) program grants with the Transportation Research Board
 - Program evaluation, including the Transportation Research Board's independent review of FRA's R&D programs
 - Railroad industry workforce research
 - R&D related travel and contractor support

The FY 2019 President's Budget requests \$19.55 million for FRA's R&D program. The funding will advance transformative, next-generation safety technology initiatives, with particular focus on safely automating railroad operating and inspection functions.

TRACK PROGRAM

The President's Budget requests \$6.00 million for FRA's Track Research Program.

The number of accidents due to track-related causes decreased by 45 percent from 2008 to 2016. This reduction is due, in part, to the industry's adoption of technologies FRA developed, such as:

- Gage restraint measurement system, a technology to assess the integrity of ties and fasteners.
- Vehicle-track interaction monitoring system developed for Amtrak and Class I freight railroads.
- Joint bar inspection system, an image-based technology that detects defects.
- Autonomous inspection technology used in Amtrak and freight assessment surveys.

Anticipated FY 2018 accomplishments for the Track Research Program include:

- Development of foundational elements for a predictive analysis of track and ballast through a joint research effort with passenger and freight railroads.
- Development and evaluation of risk-based models for track deterioration, including ballast failure and broken rails, for inspection prioritization/optimization.
- Evaluation of automated, wireless bridge condition monitoring technology.
- Evaluation of the redesigned air-coupled rail defect detection prototype and testing on the railroad test track at TTC at speeds up to 80 mph. This program is directed toward developing new methods for internal rail flaw detection that does not require physical contact with the rail. This approach eliminates current testing restrictions and opens the door to advanced high-speed autonomous inspection techniques.
- Applied research and field testing of non-destructive rail stress measurement technology. Development of this technology is to measure the critical parameters that are needed to determine or predict the occurrence of a track buckle. Effective management of thermal stresses in rail is critical to preventing temperature-related rail buckles and pull-a-parts.

- Testing and evaluation of multiple track geometry conditions and vehicles responses. These results will be used to verify derailment prediction models that are used during new vehicle qualification assessments.
- Evaluation of unmanned aircraft systems for railroad safety inspections. Pilot testing of automated, image-based track change detection systems and algorithms to efficiently provide safety data to decision makers.

Funding requested in FY 2019 will advance a number of initiatives under the Track Research Program, including:

- Build the first prototype Autonomous Internal Rail Flaw Inspection Device. This advanced technology will allow internal rail defect inspection under revenue service trains at speed. It is based on the non-contact passive rail techniques currently under development.
- Build a Change Detection Machine Vision System that automates data analysis of track inspections to determine safety-related changes to the track structure and report this information to stakeholders with limited human intervention.
- Prototype an End of Train Broken Rail Detection Device. Rails often break under trains but do not lead to immediate derailment until further damage occurs at the fracture. This program uses uniquely coupled technologies (laser, accelerometer, and vision) to identify broken rail discontinuities and alert railroad operating authorities before the next train arrives.
- Prototype a Reference Free Measurement of Rail Force Device. Effective management of thermal stresses in rail is critical to preventing rail buckles and pull-a-parts. The objective of this research is to develop a prototype that can accurately measure the absolute stress state of rail without disturbing the track structure and without prior knowledge of the zero stress state (neutral temperature) of the rail.
- Evaluation of mathematical, statistical, and signal processing tools for predicting track structure and substructure behavior through a multi-year joint research initiative with Amtrak. This effort will produce models that can be used to predict adverse track conditions which will, in turn, help Amtrak to plan maintenance and capital investments more effectively, prevent track downtimes, and, most importantly, prevent safety-related issues.
- Construct a curve section calibration slab track at TTC. This curved track section, in addition to the existing tangent section, will be used to assess track geometry measurement system performance on curved track and verify their accuracy to measure curvature, and all track geometry parameters on curve track section. The other benefit will be to aid calibration and validation of vehicle models that will be used for simulating of vehicle/track performance.
- Conclude the ballast research program and determine track geometry degradation rates as they relate to ballast fouling levels and moisture content. Develop guidance for the Office of Railroad Safety enforcement of fouled ballast locations having degraded track geometry conditions.

Automated Track Geometry Measurement System / Unmanned Aerial Vehicles/ Machine Vision \$0.6 M

- **Autonomous Track Inspection Systems Development** – Transform automated technologies to autonomous systems to improve operational efficiencies and increase the timeliness of safety-critical condition data.
- **Machine Vision/Change Detection Technology** – Basic and applied research to develop vision technologies for rail safety applications.
- **Unmanned Aerial Vehicle (UAV) Technology** – Cooperative programs with industry to demonstrate safety improvements by leveraging UAV technologies for more efficient and effective track inspections.

Track Substructure \$1.4 M

- **Operations and maintenance of the DOTX216 and DOTX218 Research Test Cars** – Provides a platform to test emerging automated inspection technologies that can facilitate regulatory reform.
- **Ballast Waiver Study** – Use of automated inspection systems to determine track geometry degradation rates as they relate to ballast fouling levels and moisture content. FRA will also further develop guidance for the Office of Railroad Safety enforcement of fouled ballast locations having degraded track geometry conditions. This study can enhance industry’s use of data-driven maintenance.
- **Track Strength and Innovative Track Inspection Technologies** – The Gage Restraint Measurement System (GRMS) research program has achieved substantial success in demonstrating the technology of gage restraint measurement and its potential for improving railroad safety and maintenance planning efficiency by measuring and analyzing the lateral restraint capacity of track. Innovative technologies such as Ground Penetrating Radar (GPR), Light Detection and Ranging (LIDAR), Vertical Track Deflection, nuclear magnetic resonance, and others have significant potential to improve track safety, especially if the data products are closely integrated with traditional track inspection systems such as GRMS and Track Geometry Measurement Systems (TGMS).
- **Quantification of Track Instabilities due to Ballast Movement at Special Locations using Integrated Sensor Networks** – The objective of this research is to quantify track instabilities due to “abnormal” ballast particle movement at locations such as rail joints, turnouts, diamonds, and switches under both freight and high-speed passenger traffic using combinations of various sensor networks. “iBeacon”, a data broadcasting technology, will be integrated into this sensor network including “SmartRocks” so that the data acquisition unit placed on a moving platform such as a geometry car can “pick up” the data automatically when passing by the instrumented sites.

Big Data / Ties / Heavy Axle Loading \$0.5 M

This funding will develop automated track-related data processing and analyses for prediction of critical maintenance areas for passenger and freight rail, such as ballast condition and track geometry. This funding will also develop a means for re-strengthening discarded creosote-treated crossties, leading to development of an automated re-manufacturing process for these ties.

Transportation Technology Center (TTC) \$1.5 M

This effort supports world-class research facilities for rail safety innovation and the overall management of FRA programs and projects conducted at TTC. Activities include leadership of project teams, monitoring of program and project technical and financial progress, status reporting, and planning support.

Rail Integrity and Rail Flaw \$1.0 M

Preventing Rail Breaks

- **Defect Growth Characterization in Modern Rail Steel** – There is a lack of understanding within the rail industry regarding how defects grow in modern rail steel. This research will provide insights that could impact automation and regulation reform. Better understanding defect growth underlies all other research and regulatory reform in this area.
- **Broken Rail Detection System on End of Train** – Rails often break under trains but do not lead to immediate derailment until further damage occurs at the fracture. Because cracks form progressively, there is an opportunity to detect cracks early before they become significant enough to cause a derailment. This project will develop a device to detect rail breaks from the end of a train as soon as they happen.

Preventing Rail Buckles

- **Rail Temperature Prediction** – Track buckles derailed a number of trains in 2017. This research will explore an automated system to predict rail temperature, one of the key parameters that divine when a track will buckle. Industry has found the preliminary data from this research very helpful and regularly receives reports from FRA.
- **Ref Free Measurement of Rail Neutral Temperature - Differential Acoustic Speed Measurements/Low Frequency** – Identifying potential track buckle situations on railroad is exceeding difficult. This research would develop devices to allow railroads to check for the potential on any rail.

Track and Train Interaction \$1.0 M

- **Precision Anomaly Curved Test Track** – This project will design and build a precision anomaly curved test track at TTC to test vehicle performance and track geometry system performance under known geometry conditions. This effort will develop a new test track section to accommodate testing TGMS and other new technologies.
- **Vehicle/Track Modeling, Simulation and Validation** – This effort will help to better understand derailment causes and make improvements to simulation methodologies and software to test and qualify new equipment.
- **Wheel/Rail Surface Defect** – The focus of this research is in understanding wheel/rail surface defects and root causes of Rolling Contact Fatigue and how to prevent them by using a full scale test rig developed by FRA and industry.

The Track Program will also support FRA in (1) writing a rule of particular applicability for the operation of new high speed services and (2) performing testing and analysis to study and possibly modify track geometry parameters for operation of vehicles at conventional speeds.

ROLLING STOCK PROGRAM

The FY 2019 President’s Budget requests \$5.76 million for FRA’s Rolling Stock Research Program.

The number of accidents due to equipment-related causes decreased by 15 percent from 2008 to 2016. This decrease has been due, in part, to previous research resulting in new practices and equipment standards for conventional rail, high-speed rail, and hazardous material transportation.

Full-scale testing and computer modeling under this program has led to improvements in crashworthiness of passenger equipment. The Railroad Safety Advisory Committee used the research results to develop a process for evaluating the suitability of equipment designed to alternative standards to be operated in the United States. Based on this process, FRA granted a waiver to the Denton County (Texas) Transit Authority to operate new passenger equipment designed to alternative standards. The statutorily mandated Next Generation Equipment Committee adopted crash energy management features, based on FRA research, in its specifications for new passenger rail vehicles. Furthermore, the introduction of crashworthiness improvements developed by FRA is saving the lives of locomotive crews.

Anticipated FY 2018 accomplishments for the Rolling Stock Research Program include:

- Continue cooperative research to understand the root causes of vertical split rim wheel failures and begin to develop solutions. Vertical split rims, though relatively infrequent, have caused serious accidents at full track speed. Work will continue with the industry wheel research consortium, which includes wheel manufacturers, major railroads, the Association of American Railroads, and independent experts in wheel metallurgy.

- Although rare, recent passenger train accidents in which vehicles overturned have resulted in fatalities when window systems failed and occupants were dragged out. Research will continue to comprehensively describe the engineering requirements placed on glazing systems, develop effective strategies for balancing all of the safety demands and provide recommendations for glazing strategies which offer maximized occupant containment in accidents.
- In recent years, railroads have sought to develop methods to safely use liquefied natural gas (LNG) as a fuel for locomotives and to transport safely LNG as a commodity in regular freight service. FRA and Pipeline and Hazardous Materials Safety Administration will continue to support cooperative research for the development and implementation of standards that will ensure the safety of such operations.

Funding requested in FY 2019 will advance a number of initiatives under the Rolling Stock Research Program, including:

- Train-to-train destructive impact tests to demonstrate the override protection afforded by the addition of crashworthy components to existing locomotives.
- Develop, implement, and evaluate new performance standards for window glazing systems.
- The Train Energy and Dynamics Simulator computer program will be accepted and used by stakeholders in the U.S. and Canada to better predict the braking performance of passenger and freight trains in regular service and under accident conditions.

Hazardous Materials Transportation \$1.2 M

This research program focuses on improving the safety of rail transport of hazardous materials and is being conducted in cooperation with the railroad industry and Transport Canada. The industry contributes both cars for testing and technical support for evaluation. This program seeks to develop new standards and methodologies to evaluate the safety and performance of new tank car designs for hazardous material tank cars. Having a safe means of transportation is vital to growing domestic energy production.

Rolling Stock and Component \$2.1 M

- **Automated Safety Inspections** – Pilot testing began in FY 2017 to allow wheel temperature detectors to be used in place of certain manual inspections. The tests are expected to run for two to three years and, if successful, would allow expanded use of detectors, resulting in cost reductions for brake testing and maintenance.
- **Machine Vision Inspection of Rail Cars** – Industry has made Automated machine vision inspection of railcars a high priority. FRA has partnered with the Industry in evaluating and validating the operation of new systems, including developing new procedures for use and new algorithms for image processing for the technology and the data collected by the systems.

- **Automated Handbrake System** – This technology is under development and evaluation in partnership with the industry. The systems would have prevented accidents such as the train derailment at Lac-Mégantic, Quebec, Canada.
- **Electronically Controlled Pneumatic (ECP) Brakes for Passenger Trains** – The development of ECP brakes is an industry-led effort. FRA has supported the evaluation of new systems and has helped assess the costs and benefits of potential implementation.

Train Occupant Protection \$2.46 M

- **Glazing Integrity** – Several fatalities have occurred when passengers were ejected from failed windows during a rollover. This project’s objective is to develop engineering strategies for improved occupant containment by glazing systems, while meeting all other existing safety, service, and manufacturing requirements. In addition to functioning as a window, glazing is also expected to be impact resistant, provide emergency egress, provide emergency access, be fire-resistant, and provide occupant containment. Planned activities include development of detailed plans for drafting, analyzing, and testing engineering strategies for glazing systems. The research results will be used to support regulatory and industry standard development. This research also meets a NTSB Recommendation and is supported by the Railroad Safety Advisory Committee.
- **Diesel Multiple Unit Cars (DMUs) Fuel Tanks** – New designs for DMUs are being introduced into service. FRA will conduct research and evaluations of new designs to ensure they provide adequate protection of fuel tanks during collisions, derailments, or grade crossing accidents.

TRAIN CONTROL AND COMMUNICATION PROGRAM

The FY 2019 President’s Budget requests \$4.40 million for FRA’s Train Control and Communication Research Program.

The number of signal-related train accidents has decreased by 21 percent from FY 2008 to FY 2016 with steady incremental improvements each year. Further reduction is expected from the installation of Positive Train Control (PTC) on certain routes, as PTC is one of the most transformative technological changes in the history of railroad signal technologies.

The Train Control and Communication research activity has innovated PTC-related technologies for several years. Notable successes include:

- Radio desense to eliminate radio interference and improve wireless communication between locomotives, wayside, and back office, especially in highly congested corridors;
- Passenger Braking Algorithm development and refinement to improve braking enforcement performance for passenger railroads; and

- Rail Crossing Violation Warning Application Development, a cooperative vehicle and infrastructure system that assists drivers in avoiding crash-imminent situations at railroad crossings.

With these developments, railroads were able to implement PTC systems, such as Amtrak's Incremental Train Control System in Michigan and BNSF Railway's Electronic Train Management System in Illinois and Texas. Other railroads have adopted the technologies in their pilot PTC systems.

Research has also focused on improving safety at grade crossings. The number of accidents at grade crossings fell by 24 percent from 2005 to 2016. Research that contributed to this reduction included the following:

- Research on the most significant influences on grade crossing safety, including commercial driver safety, locomotive conspicuity, crossing closure and grade separation, sight line clearance, and warning device upgrades.
- A study of a four-quadrant gate and an obstruction detection system showed the same effectiveness as closing the crossing, but without the economic and societal costs.

Anticipated FY 2018 accomplishments include:

- A more effective and less costly prototype system for broken rail detection using fiber optic cables.
- Design and test of the enhanced PTC braking algorithm to reduce unintended PTC enforcements.
- Deployment of the interoperable vital Employee In Charge Portable Terminal to protect roadway workers in work zones.
- New locomotive-based technologies for long-range trespasser detection and warning systems.
- Development and testing of an advanced highway preemption system.
- Technology demonstrations and technology transfer activities.

Funding requested in FY 2019 will advance a number of initiatives under the Train Control and Communication Research Program, including:

- Advance autonomous and connected-vehicle technology integration with highway-rail grade crossing safety systems.
- Continuing support for PTC technology refinement and enhancement as a result of the ongoing testing and evaluations in braking performance, communication security and reliability, and system interoperability.
- Enhanced PTC risk modeling and simulations to help the Office of Railroad Safety to evaluate railroads' safety plans and risk assessment of modification to existing train control systems, as well as the anticipated upgrades to PTC systems.
- Develop additional safety applications using fiber optics technology, including train tracking, flat wheel detection, and dragging equipment.
- Integration of grade crossing safety systems with PTC.
- Develop standardized methods and procedures for PTC performance data collection and analysis to assist the Office of Railroad Safety and industry monitor and assess vulnerabilities in PTC systems.

- Trespass counter measure technologies research to reduce fatalities and injuries at railroads right of way.
- Technology demonstrations and technology transfer activities.

Train Control and Communication \$3.4 M

- **PTC - Next Gen Research** – This project takes advantage of advances in sensor, communication, and automation technologies to develop autonomous or operator on the loop train operation to improve safety, efficiency, and ease regulatory compliance. Also, this research includes rail network capacity improvement (without adding additional track) through advanced train control technologies to support anticipated economic and population growth.
- **PTC Technology Research** – The objective of this research is to develop PTC technology subsystems and tools to enable the railroad industry’s implementation of the PTC mandate. This research results in many commercialized products adopted by the railroad industry.
- **Connected/Automated Vehicle Research** – Working in partnership with the Federal Highway Administration, this research develops automated safety systems for in-vehicle warning of potential grade crossing violations and therefore preventing injuries and/or fatalities. This research develops the necessary technologies to enable autonomous vehicles to safely negotiate grade crossings.
- **Cybersecurity** – PTC controlled, autonomous, and any communication-based train control operation relies on wireless communication systems to exchange command/control, position, and other critical safety and operation data on real-time bases. Security and reliability of this communication is vital to the safe operation of trains on the national rail network. Like any wireless communication system, it is susceptible to cyberattacks and hackings, which this research addresses by providing innovative technologies and methodologies to fortify the rail network communication links.

Grade Crossing Safety and Trespass Prevention \$1.0 M

Grade Crossing Safety Research plays a vital role in reducing accidents and incidents around grade crossings, which has for decades been the rail industry's largest public safety problem. FRA will continue R&D on communication-based grade crossing activation, which shows early promise to improve highway mobility, reduce traffic congestion, and better support autonomous vehicle fleets. Also, GradeDEC.net, a powerful planning tool for States and cities, would be maintained. Plans for LIDAR mapping the elevation profiles of all grade crossings for inclusion in the FRA Grade Crossing database will remain in place. This mapping is seen as a key to mitigating heavy trucks stuck on crossings and also aiding accident investigations.

HUMAN FACTORS PROGRAM

The FY 2019 President's Budget requests \$2.09 million for FRA's Human Factors Research Program.

There was a 31 percent reduction in human factors-caused accidents from 2008 to 2016, in part due to FRA's Human Factors R&D. For example, previous fatigue research has provided a scientific basis to support new rules for commuter and intercity passenger rail hours of service and fatigue risk management, as required by the *Rail Safety Improvement Act*.

Although previous work has provided improvements to the rail system, crew fatigue continues to be an area of concern. Split shifts, irregular shifts, and lack of effective guidance and enforcement for rest requirements are areas that need further study and could require regulatory or voluntary changes in recommended practices to reduce the likelihood of fatigue-related accidents.

FRA's Cab Technology Integration Laboratory (CTIL) provides a test bed for projects to prevent distraction-based accidents in locomotive crews, to improve vigilance in operations, and to design human factors specifications for the next generation locomotive cab.

Anticipated FY 2018 accomplishments for the FRA's Human Factors R&D program include:

- Human reliability studies following full implementation of PTC technology in the CTIL to understand the challenges of human-computer interaction and integration of multiple interfaces.
- Completion of the Maintenance of Way (MOW) fatigue study to support the FRA Office of Railroad Safety's needs for issuing safety advisories and rulemaking.
- Implementation of safety culture and safety conformance measurement tools for the Short Line Safety Institute (SLSI). Continued support for the SLSI to help improve safety across the short line and regional railroad industry.
- Dissemination of Clear Signal for Action materials to improve safety culture.
- Continued study of drivers' behavior at highway-rail grade crossings by introducing data from naturalistic settings and driving simulator.
- Develop communication strategy to expand the use of "Railroaders' Guide to Healthy Sleep" website.¹

Funding requested in FY 2019 will advance a number of initiatives under the Human Factors Research Program, including:

- Technology, automation, and systems design;
- Railway worker and operator performance (e.g., fatigue management, vigilance, attention, and distraction);
- Organizational culture and safety performance; and
- Grade crossing safety and trespass/suicide mitigation.

¹ <https://www.railroaderssleep.org/>

Grade Crossing and Trespassers - Organizational Culture and Safety
Performance\$0.6 M

This project will work to identify and implement countermeasures that could be used to mitigate the incidence of trespassing and suicides on railroad rights-of-way.

Grade Crossing and Trespassers - Technology, Automation, and System
Design\$0.2 M

This project will apply Human Systems Integration principles to grade crossing design to enhance motorist perception, understanding and compliance with grade crossing warnings, and design features.

Railroad Systems and Operations - Organizational Culture and Safety
Performance\$0.24 M

- **Railroad Violations** – This project seeks to identify the factors that may lead to railroad violations, methods to reduce or eliminate these violations, and increase safety.
- **Robust Manual Locomotive Mode** – This effort will explore performance impacts of a new locomotive operating mode that directs automated sequences.

Railroad Systems and Operations - Railway Worker and Operator
Performance\$0.05 M

This project includes the data collection, analysis and modeling of railroad worker sleep and rest patterns to understand fatigue, as well as fatigue education and training to help facilitate individual understanding and awareness and behavior change related to sleep and fatigue.

Railroad Systems and Operations - Technology, Automation, and Systems
Design\$1.0 M

This project includes the data collection, analysis, design, and development of technology using Human Systems Integration principles to ensure that automation improves safety through effective control and management of information presented to operators of railroad systems.

RAILROAD SYSTEMS ISSUES PROGRAM

The FY 2019 President's Budget requests \$1.30 million for FRA's Railroad Systems Issues Program. A small portion of this funding is for staff to oversee contractors' and grantees' performance and to witness testing, including travel.

Anticipated FY 2018 accomplishments for the Railroad Systems Issues program include:

- Updating the safety risk model for guiding future R&D.
- Evaluating projects conducted by the four R&D divisions.
- Supporting the Workforce Development Program covering: Council on Women and Girls, Transportation Career Pathway Model Development, Minority Serving Institutions Task Force, and the YES Mentoring Program.
- Conducting a railroad industry workforce assessment to gather data on trends, skill demands, training opportunities, industry best practices, and cross-modal efforts.

Funding requested in FY 2019 will advance a number of initiatives under the Railroad Systems Issues Research Program, including Rail Safety IDEA (Innovations Deserving Exploratory Analysis) program grants with the Transportation Research Board and Intelligent Rail Systems Research.

What benefits will be provided to the American public through this request and why is the program necessary?

As described above, FRA's research, development, and technology projects provide tangible safety and operational benefits to the railroad industry. FRA's basic and applied research efforts help to develop innovative solutions to challenges facing the rail industry and ensure that the best available science and technology are the basis for FRA's safety rulemaking, enforcement, and programs. FRA also develops technology that the rail industry can adopt voluntarily to improve safety. FRA conducts research, development, and technology initiatives independently and collaboratively to:

- Ensure safety is the paramount consideration in exploring new technologies and practices;
- Leverage public resources, disperse costs, and reduce or eliminate redundant efforts;
- Assess new concepts and technologies that the railroad industry is using; and
- Promote industry adoption of promising research results.

Research into tank cars will benefit the American public by reducing the spillage of hazardous material. FRA's R&D program will help protect people who live in neighborhoods through which trains operate and reduce the likelihood of environmental damage due to hazardous material releases. Two areas of research that help achieve this are (1) reducing failures such as broken wheels and rails that cause derailments and (2) improving the strength of tank cars to better survive derailments that do occur.

Safe rail transportation directly benefits the public traveling by train. FRA's R&D program will reduce train collisions by facilitating the implementation of new technologies such as PTC. It

will reduce collision risks when passenger trains share the same corridors as freight trains. The program will lay the foundation for regulatory reform and performance-based approaches that will reduce the likelihood of derailments. FRA's R&D program will also improve occupant protection in collisions and derailments.

By addressing the root causes of grade crossing accidents, FRA's R&D program improves the safety of the American public that needs to cross railroad rights-of-way. Human factors research into driver behavior at highway-rail grade crossing and the effectiveness of alternative warning systems helps identify optimum solutions. Developing new technologies for crossing protection and train-to-vehicle communications leads to reduced incidents of grade crossings being blocked, which can delay emergency responders.

FRA's R&D program helps to reduce fatalities and injuries to trespassers on railroad property. Members of the public are known to take shortcuts across railroad property. Innovative solutions for warning people of the danger they face need to be researched and implemented.

By funding universities to conduct R&D, FRA supports a pipeline of future rail expertise by providing opportunity for students to prepare for rewarding jobs in the railroad industry. The age profile for railroad industry employees shows a growing demand for new entrants. University programs that offer railroad classes help provide the next generation of railroad professionals.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD RESEARCH AND DEVELOPMENT (69-X-0745)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0745-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Track Program	10,859	11,202	6,000
0002	Rolling Stock Program	11,585	10,252	5,760
0003	Train Control and Communication	7,943	8,031	4,400
0004	Human Factors	6,186	5,505	2,090
0005	Railroad System Issues	3,895	4,838	1,300
0100	Total direct program	40,468	39,828	19,550
0799	Total direct obligations	40,468	39,828	19,550
0801	Reimbursable services	-	-	-
0900	Total new obligations	40,468	39,828	19,550
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	8,083	10,000	12,000
1020	Adjustment of unobligated bal brought forward, Oct 1	(723)	-	-
1021	Recoveries of prior year unpaid obligations	2,697	-	-
1050	Unobligated balance (total)	10,057	10,000	12,000
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	40,100	39,828	19,550
1160	Appropriation, disc (total)	40,100	39,828	19,550
	Spending authority from offsetting collections, discretionary:			
1700	Collected	-	2,000	2,000
1701	Change in uncollected payments, Federal sources	-	-	-
1750	Spending auth from offsetting collections, disc (total)	-	2,000	2,000
1900	Budget authority (total)	40,100	41,828	21,550
1930	Total budgetary resources available	50,157	51,828	33,550

Account
Number: 69-0745-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Memorandum (non-add) entries:			
1940	Unobligated balance expiring	-	-	-
1941	Unexpired unobligated balance, end of year	9,690	12,000	14,000
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	41,698	43,000	40,000
3001	Adjustments to unpaid obligations, brought forward, Oct 1	723	-	-
3010	Obligations incurred, unexpired accounts	40,468	40,000	20,000
3011	Adjustments to uncollected pymts, Fed sources, brought forward, Oct 1	-	-	-
3020	Outlays (gross)	(37,303)	(43,000)	(42,000)
3040	Recoveries of prior year unpaid obligations, unexpired	(2,697)	-	-
3050	Unpaid obligations, end of year (gross)	42,889	40,000	18,000
3060	Uncollected pymts, Brought Forward	(185)	-	-
3070	Change Uncollected pymts	-	-	-
3090	Uncollected pymts, Fed sources, end of year	(185)	-	-
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year (net)	42,235	43,000	40,000
3200	Obligated balance, end of year	42,703	40,000	18,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	40,100	42,000	22,000
	Outlays, gross:			
4010	Outlays from new discretionary authority	12,654	14,000	8,000
4011	Outlays from discretionary balances	24,649	29,000	34,000
4020	Outlays, gross (total)	37,302	43,000	42,000
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	-	(2,000)	(2,000)
4040	Offsets against gross budget authority and outlays, disc (total)	-	(2,000)	(2,000)
4070	Budget authority, net (discretionary)	40,100	40,000	20,000
4080	Outlays, net (discretionary)	37,303	41,000	40,000

Account

Number: 69-0745-0-1-401

		FY 2017	FY 2018	FY 2019
Line	Line Title	Act	CY	BY
4180	Budget authority, net (total)	40,100	40,000	20,000
4190	Outlays, net (total)	37,303	41,000	40,000

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

**NATIONAL RAILROAD PASSENGER CORPORATION
APPROPRIATIONS LANGUAGE**

NORTHEAST CORRIDOR GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

To enable the Secretary of Transportation to make grants to the National Railroad Passenger Corporation for activities associated with the Northeast Corridor as authorized by section 11101(a) of the Fixing America's Surface Transportation Act (division A of Public Law 114—94), ~~\$235,000,000~~ \$200,000,000, to remain available until expended: *Provided*, That the Secretary may retain up to one-half of 1 percent of the funds provided under both this heading and the “National Network Grants to the National Railroad Passenger Corporation” heading to fund the costs of project management and oversight of activities authorized by section 11101(c) of division A of Public Law 114-94: *Provided further*, That in addition to the project management oversight funds authorized under section 11101(c) of division A of Public Law 114-94, the Secretary may retain up to an additional \$5,000,000 of the funds provided under this heading to fund expenses associated with ~~the Northeast Corridor Commission established under~~ implementing section 24905 of title 49, United States Code. ~~*Provided further*, That of the amounts made available under this heading and the National Network Grants to the National Railroad Passenger Corporation heading, not less than \$50,000,000 shall be made available to bring Amtrak served facilities and stations into compliance with the Americans with Disabilities Act.~~

NATIONAL NETWORK GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

To enable the Secretary of Transportation to make grants to the National Railroad Passenger Corporation for activities associated with the National Network as authorized by section 11101(b) of the Fixing America's Surface Transportation Act (division A of Public Law 114-94), ~~\$1,167,000,000~~ \$537,897,000, to remain available until expended: *Provided*, That the Secretary may retain up to an additional \$2,000,000 of the funds provided under this heading to fund expenses associated with the State-Supported Route Committee established under 24712 of title 49, United States Code.

Explanation: The President's Budget proposes to fund Amtrak grants through the account structure authorized by the FAST Act for the Northeast Corridor and the National Network. However, the President's Budget proposes greater cost sharing between states and the Federal Government for operations of the National Network by requiring states to fully fund State-Supported routes and provide an equal contribution to the Federal Government for Long Distance routes that serve their communities. Additionally, the President's Budget proposes to strike the set-aside for Americans with Disabilities Act (ADA) station upgrades; approximately 90 percent of the ADA set-aside in FY 2017 was for projects on

the National Network. Due to the reduction in Amtrak funding proposed, the President's Budget recommends providing greater flexibility to determine the appropriate amount for ADA upgrades. This requirement will be handled through FRA's grant agreement with Amtrak.

EXHIBIT III-1
GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
Northeast Corridor Grants to the National Railroad Passenger Corporation	328,000	325,773	200,000
National Network Grants to the National Railroad Passenger Corporation	1,167,000	1,159,075	537,897
TOTAL	<u>1,495,000</u>	<u>1,484,848</u>	<u>737,897</u>
FTEs	9	12	7

Program and Performance Statement

FRA's Grants to Amtrak provide capital, operating, and debt service funding to Amtrak, as well as support FRA's management oversight of Amtrak. Funding for FY 2019 is made available by FRA in accordance with the authorities provided under Section 11101 of the Fixing America's Surface Transportation Act of 2015 (FAST Act). Section 11101 of the FAST Act authorizes separate funding for the Northeast Corridor and the National Network, which includes Amtrak's State-Supported services, Long Distance services, and other Amtrak costs not allocated to the Northeast Corridor. The FY 2019 President's Budget proposes a reduction in Federal operating subsidies and capital investment for both the Northeast Corridor and the National Network, while simultaneously establishing a formal independent commission to examine the future of the Long Distance network (including the potential full elimination of Long Distance routes).

DETAILED JUSTIFICATION FOR GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

FY 2019 – Grants to the National Railroad Passenger Corporation - Budget Request \$000

Program Activity	FY 2017 Actual	FY 2018 Annualized CR	FY 2019 Request
Northeast Corridor Grants to the National Railroad Passenger Corporation	328,000	325,773	200,000
National Network Grants to the National Railroad Passenger Corporation	1,167,000	1,159,075	537,897
TOTAL	1,495,000	1,484,848	737,897

What is this program and what does this funding level support?

The National Railroad Passenger Corporation (Amtrak) operates three primary types of intercity passenger rail services:

1. Higher speed, high frequency, **Northeast Corridor** (NEC) services;
2. **State-Supported**, short distance, corridor service on 29 routes that are located in densely populated regions; and
3. **Long Distance** services on 15 routes greater than 750 miles that connect rural areas and population centers.

Over the last decade, Amtrak ridership has increased by over 10 percent and Amtrak has made significant strides to improve financial performance and cost recovery. This improvement is borne out by the corporation's FY 2017 performance metrics, which show Amtrak setting new ridership and revenue records of 31.7 million passengers and \$3.2 billion, respectively, as well as covering 94.7 percent of its operating costs.¹

During this timeframe, the enactment of two major rail authorization bills – the Passenger Rail Investment and Improvement Act (PRIIA) of 2008 and the Fixing America's Surface Transportation Act (FAST) of 2015 – significantly changed the nature and relationships by which Amtrak is funded. As a result of this legislation, 23 states and Amtrak developed and implemented cost-allocation policies for the NEC and State-Supported routes, as well as established formal governance bodies to promote mutual cooperation and planning among the respective NEC² and State-Supported³ stakeholders. These achievements have helped to infuse new and increased sources of funding from States and local governments for infrastructure,

¹ Amtrak, [Amtrak Sets Ridership, Revenue and Earning Records](#), November 16, 2017.













² The Northeast Corridor Commission (NEC Commission).

³ The State-Amtrak Intercity Passenger Rail Committee.

equipment, and operations on these routes. To further implement the expectations outlined in PRIIA, the FY 2019 President’s Budget proposes to eliminate the partial Federal operating subsidy currently provided for State-Supported routes.

The majority of Amtrak’s annual operating losses that are subsidized by the Federal Government are attributable to the operation of Long Distance trains (more than \$500 million in FY 2017). Amtrak’s Long Distance routes account for only 15 percent of Amtrak ridership, but 31 percent of train system operating costs, while also suffering from poor on-time performance (OTP) due largely to delays on the freight-owned railroads that host Long Distance trains (52.1 percent endpoint OTP in FY 2017). Late trains cost Amtrak approximately \$140 million (or 30% of the Long Distance train operating loss) in 2008 when on-time performance was at levels similar to where it is heading today.⁴

Amtrak FY 2017 Ridership, Operating Revenue, Operating Expense by Service Line⁵

Amtrak Service	Ridership	Operating Revenue	Operating Expense	On-Time Performance
Northeast Corridor				
State-Supported				
Long Distance				

*Ridership icon equals 1 million; revenue/expense icon equals \$100 million; OTP percentage in pie chart

⁴ U.S. Department of Transportation, Office of the Inspector General, [Report Number CR-2008-047](#), March 28, 2008

⁵ Amtrak, [Monthly Performance Report](#), September FY 2017.

Long Distance Performance Proposal

The Administration believes that Amtrak should take a comprehensive look at its operations and use of resources and implement reforms to provide a more efficient and valuable service to its passengers and the Nation. While the Administration does not dispute that certain communities and travelers across the country rely on Amtrak's Long Distance trains, the American taxpayer is currently required to subsidize operations that are utilized by a disproportionately small segment of Amtrak passengers.

To reduce these Federal subsidies, the President's Budget proposes to require states to match Federal operating investments in these routes that serve their communities. The President's Budget also proposes a comprehensive analysis to examine the future of these routes by establishing an independent commission – the Long Distance Train Restructuring Commission – to recommend how to best restructure or fully eliminate Federal subsidies to the Long Distance network. In the interim, while the commission conducts its analysis, FRA would work with Amtrak to implement a number of measures to further increase the efficiency of Long Distance service, reduce operating costs, and bring additional value to taxpayer investments, while maintaining service to the majority of the communities who have service today.

Snapshot of Proposed Initiatives to Improve Long Distance Financial Performance

Initiative	Timeframe
Require State Participation in Funding Long Distance Routes	
<ul style="list-style-type: none"> Require states that are served by Long Distance trains to contribute a 50 percent cost share with the Federal Government for the operations of these routes 	FY19 –
Restructure the Long Distance Network	
<ul style="list-style-type: none"> Establish an independent commission to comprehensively analyze and make recommendations to the Administration and Congress on the future route structure for the Long Distance network 	FY19 – FY 20
Implement & Expand Long Distance Competition Pilot	
<ul style="list-style-type: none"> Implement FAST Act pilot program for rail carriers and/or states to operate up to 3 Long Distance routes in lieu of Amtrak Based on initial petitions from rail carriers and states, potentially expand the number of routes operated by non-Amtrak entities and further refine the pilot to increase efficiency and reduce costs 	FY16 – FY 23
Maximize Existing Tools to Reduce Long Distance Costs	
<ul style="list-style-type: none"> Cost-saving initiatives to be identified by Amtrak, potentially including: <ul style="list-style-type: none"> Allow intra-NEC ticketing on Amtrak Long Distance trains Eliminate redundant Long Distance routes 	FY19 –
Eliminate Federal Subsidies for Premium Services	
<ul style="list-style-type: none"> Encourage Amtrak to contract out premium amenities to private operators (on a zero-cost basis to Amtrak) Require Amtrak to otherwise break even or eliminate premium amenities (e.g. sleeping cars, dining cars, and checked baggage) 	FY19 –

Require State Participation in Funding Long Distance Routes

As a result of the state-Amtrak cost sharing reforms contained in PRIIA, there is now increased involvement and accountability in the delivery of State-Supported services and NEC infrastructure maintenance and improvements. However, the benefits these two service lines have realized as a result of the PRIIA reforms have also further illustrated the incongruity of the performance and governance of the Long Distance routes.

Despite serving 39 States – and providing the only form of intercity passenger rail service in 23 states – the financial burden for covering the Long Distance network’s significant operating losses falls solely on the Federal Government. The FY 2019 President’s Budget proposes to require State contributions equal to the Federal Government’s investment for the operating costs of the Long Distance routes that serve their communities. This action will reduce the Federal subsidy and enable States to play a larger role in shaping the delivery of these services, improving financial performance, and better holding Amtrak and the host freight railroads accountable for the on-time performance of these trains.

Restructure the Long Distance Network

On a macro level, the operating and financial performance metrics for Amtrak’s Long Distance routes highlight a struggling business model in need of reform. This situation was true when private railroads operated these services nearly 47 years ago when Amtrak was created, and it remains true today. The inherent parochial interests of a service line that serves more than 300 communities in 39 states prevent meaningful reforms from being implemented – many stakeholders will agree that changes are needed, so long as they do not result in their community or state losing service.

The FY 2019 President’s Budget proposes to form an independent commission to take a dispassionate, data-driven approach to restructuring the Long Distance network (up to and including the potential full elimination of Amtrak Long Distance service). Similar to the Base Realignment and Closure (BRAC) process employed for the Department of Defense, the President would consult with Republican and Democratic leadership from both the Senate and House of Representatives concerning the appointments and membership to the Long Distance Train Restructuring Commission.

Over the course of two years, the proposed commission would analyze the Long Distance network and provide a singular recommendation to Congress for an up-or-down vote on how to restructure the network. In making its recommendation to Congress, the Long Distance Train Restructuring Commission will consider a number of factors, including, but not limited to: financial and operating performance, rural connectivity, transportation network redundancy and resiliency, and transcontinental and North-South connectivity.

Implement & Expand Long Distance Competition Pilot

Section 11307 of the FAST Act required the Department to complete a rulemaking to establish a pilot program to allow for the competitive selection of rail carriers – or states and other governmental agencies that have secured operating agreements with any applicable host railroads – to operate Amtrak’s Long Distance routes. The pilot, which is limited to no more than 3 of Amtrak’s 15 Long Distance routes, is intended to encourage private sector participation in the operations and management of intercity passenger rail routes currently operated by Amtrak.

FRA published the final rule for the pilot on July 7, 2017. Eligible entities must submit a petition to operate a Long Distance route by March 4, 2018. Under the pilot, selected petitioners may receive up to 90 percent of the operating subsidy provided to Amtrak in the prior fiscal year for the selected routes.

Based on the level of interest and petitions received for the pilot, FRA may recommend expanding the pilot to include more routes. Similarly, the pilot will help inform the Long Distance Train Restructuring Commission’s analysis and recommendations for the future of the Long Distance network.

Maximize Existing Tools to Reduce Long Distance Costs

Traditionally, the five Long Distance trains⁶ that operate on the NEC between New York City and Washington, D.C. are not open for ticketing to passengers just traveling within the NEC. This artificial restriction is inefficient, confusing to customers, and a wasted revenue opportunity. However, in 2015, Amtrak’s *Palmetto* train began carrying intra-NEC passengers, which resulted in a 65 percent reduction in the train’s operating loss from FY 2015 to FY 2016 (\$11 million to \$4 million). This action also generated additional savings to the NEC service line by allowing a Northeast Regional train to stop operating, which enables Amtrak equipment to be reinvested on the network and for Amtrak to utilize the freed-up capacity for other revenue generation opportunities (either its own operations or selling to commuter operators). Expanding this practice to the other Long Distance trains that operate over the NEC could further reduce Long Distance operating losses.

In addition to not maximizing revenue opportunities on the NEC, there is redundancy among the Long Distance routes that operate along the East Coast. The station stops along the *Silver Meteor* route – between New York City and Miami – are entirely served by a combination of the *Palmetto* and *Silver Star* trains. If the *Silver Meteor* were to be eliminated, each of its former station stops would retain service from the other two Long Distance trains, though passengers between the eastern Carolinas and Florida would now need to switch trains in Savannah, GA. As an additional consideration, the initiation of the private Brightline service between Miami and West Palm Beach, FL planned in 2018 could lessen the popular intra-Florida trips that rely on Amtrak Long Distance trains.

⁶ *Cardinal, Palmetto, Silver Star, Silver Meteor, and Crescent*

Eliminate Federal Subsidies for Premium Services

In addition to providing customers a basic coach seat from origin to destination, all 15 Long Distance routes operate with checked baggage and a small café. All but the *Palmetto* train also include premium sleeping car and dining car options. Removing these premium amenities could allow Long Distance trains to operate more efficiently and at reduced costs. However, due to the length of Long Distance train trips, some form of lower-cost food options must be preserved to meet basic customer needs and expectations.

FRA also believes that these sleeper and dining services represent strong candidates for Amtrak to seek private operators to contract with to more efficiently serve its customers. As authorized under current law (49 U.S.C. 24101(d)), FRA encourages Amtrak to identify further opportunities to contract out components of its operations where financially beneficial (and at no cost to Amtrak).

FY 2018 Accomplishments

Anticipated FY 2018 accomplishments for Amtrak include:

- Continued support of Amtrak's annual capital program to maintain and improve infrastructure, equipment, stations, facilities, information technology, and other support services required to provide intercity passenger rail operations.
- On-going development and production of next-generation high-speed trainsets for the Acela service on the NEC and major station improvements at Moynihan Station in New York City, Washington Union Station, Baltimore Penn Station, and New Carrollton Station in Maryland. These projects were financed by the Department's Build America Bureau in 2016 through the Railroad Rehabilitation and Improvement Financing (RRIF) Program.
- Adoption of new 5-year asset line plans as required by Section 11203 of the FAST Act. Amtrak's asset lines include Train Operations, Infrastructure, Equipment, Stations, and National Assets and Corporate Services. These plans will complement the 5-year service line plans first developed in FY 2017 (service lines include NEC Intercity Operations, State-Supported, Long Distance, Infrastructure Access, and Ancillary Services). Asset lines provide resources and deliver transportation and related services to the service lines. Together, the service line and asset line plans replace Amtrak's previous requirement to develop a 5-year financial plan and are intended to help to better inform Amtrak's decision-making process and more clearly communicate with the Department, Congress, States, passengers and other partners on Amtrak's business priorities and financial performance.

The FY 2019 President's Budget requests \$737.9 million for Amtrak, including:

Northeast Corridor (\$200 million): The Northeast Corridor is one of the most important transportation assets in the United States. The lifeblood to the regional economy, the NEC carries more than 800,000 people each day on Amtrak and commuter services. Amtrak's NEC train operations account for more than a third of its ridership (12 million) and nearly 40 percent of its operating revenue (\$1.2 billion).⁷

The FY 2019 President's Budget requests \$200 million for Amtrak's Northeast Corridor account to fund the following needs:

- Normalized replacement of NEC infrastructure in order to safely maintain operations;
- Targeted investments in major state of good repair backlog and infrastructure improvement projects;
- The portion of annual equipment overhauls that the NEC's operating surplus does not cover;
- Principal and interest payments on Amtrak's legacy debt that is attributable to the NEC;
- Information technology and other "backbone" services to support NEC infrastructure and operations;
- Upgrades and repairs to Amtrak-served stations on the NEC, including projects to bring stations into compliance with Americans with Disabilities Act (ADA) requirements;
- Activities of the NEC Commission (\$5 million), which was established by Congress under PRIIA to promote mutual cooperation and planning among NEC states/commuter rail agencies and Amtrak and to manage the implementation of the PRIIA Section 212 cost allocation policy. The NEC Commission is composed of representatives from the eight NEC States and the District of Columbia, Amtrak, and the U.S. Department of Transportation; and
- FRA oversight of Amtrak (\$1 million, additional details below under the National Network).

National Network (\$537.9 million): Statute defines the National Network to include capital, operating, and debt service for Amtrak's State-Supported routes, Long Distance routes, and other activities not allocated to the Northeast Corridor. The \$537.9 million request would support the following needs:

- Long Distance Services (\$325 million): The 15 Long Distance routes currently operated by Amtrak serve more than 300 stations in 39 states. For FY 2019, the President's Budget proposes to continue operation of the Long Distance network, while reducing Federal capital investment and operating subsidies, in part due to the cost saving measures outlined above. States served by Long Distance routes will also now be required to split the operating subsidy necessary to support these services with the Federal Government. The President's Budget also proposes to retain \$2 million annually

⁷ Amtrak, [Monthly Performance Report](#), September FY 2017.

in both FY 2019 and FY 2020 to support the work of the Long Distance Train Restructuring Commission.

- State-Supported Services (\$177 million): The 29 State-Supported routes provide corridor service in 18 States. Section 209 of the PRIIA required States to be financially responsible for supporting their corridor services, beginning in FY 2014. In FY 2017, States paid Amtrak more than \$280 million for capital and operating costs associated with State-Supported routes. FRA funding will provide capital assistance for the infrastructure, equipment, stations, and other assets utilized for State-Supported services. The FY 2019 President's Budget proposes to no longer utilize Federal funding to offset operating costs not covered by State-Supported train revenues and the Section 209 policy (approximately \$97 million in FY 2017). Beginning in FY 2019, Amtrak must eliminate costs that they are not able to have reimbursed under the Section 209 policy. Costs that cannot be eliminated by Amtrak will need to be covered by the States.

An additional \$2 million of National Network funding is set-aside to fund the activities of the State-Supported Route Committee, as authorized by Section 11101(f) of the FAST Act. The State-Supported Route Committee is composed of representatives from the 21 sponsors of State-Supported routes, Amtrak, and FRA. Similar to the NEC Commission, the State-Supported Route Committee was established by Congress to promote mutual cooperation and planning for the State-Supported routes and to manage the implementation of the PRIIA Section 209 cost allocation policy.

- Infrastructure Access (\$33.2 million): While the majority of track over which Amtrak trains operate are owned by other railroads, Amtrak owns some infrastructure outside of the NEC mainline on the National Network. Amtrak-owned or controlled infrastructure on the National Network includes, but is not limited to:
 - 96 miles of the Michigan Line between Kalamazoo, MI - Porter, IN;
 - 103 miles of the Keystone Corridor between Philadelphia - Harrisburg, PA;
 - 61 miles of the Springfield Line between New Haven, CT - Springfield, MA;
 - 94 miles of the Hudson Line owned by CSX and leased to Amtrak between Poughkeepsie, NY - Hoffmans, NY (near Schenectady); and
 - the terminal areas in Chicago, New Orleans, and other locations.

For these Amtrak-owned or controlled infrastructure and facilities, Amtrak is responsible for planning, developing, managing, and providing access to other rail operators (freight and passenger) and public or private entities that use those assets. Unlike on the NEC, National Network revenues are not sufficient to fully cover costs and Federal assistance is required.

- FRA Oversight (\$2.7 million): During this time of transition for a more efficient Amtrak, maintaining proper oversight is critical. FRA is working to help make Amtrak's financials more transparent through new 5-year service line and asset line plans as required by Section 11203 of the FAST Act. These plans are intended to better inform Amtrak's decision-making process and more clearly communicate with the Department,

Congress, States, passengers and other partners on Amtrak's business priorities and financial performance.

In addition, FRA has the responsibility to oversee the delivery of Amtrak's capital program, along with its operating initiatives. Improved project delivery of capital projects to maintain and improve infrastructure, equipment, stations, and systems are essential for Amtrak to improve performance and reduce its reliance on future Federal funding. FRA has a particular interest in ensuring Amtrak enhances its delivery of the Americans with Disabilities Act (ADA) stations program.

Congress directed FRA to oversee Amtrak performance and reform efforts by authorizing 0.5% of Northeast Corridor and National Network appropriation to be dedicated to management oversight of Amtrak.

What benefits will be provided to the American public through this request and why is the program necessary?

The United States' population is projected to increase by more than 55 million people over the next 25 years. Demand for intercity passenger rail service will continue to grow as the public seeks transportation alternatives to complement our increasingly congested highways and airports. A rationalized Amtrak network focused on operating NEC and State-Supported trains will more efficiently utilize taxpayer funds and be better positioned to serve the small number of megaregions where the majority of the nation's projected population growth is expected to be concentrated. Through the cost allocation policy developed for the State-Supported routes under Section 209 of PRIIA, States have made a strong financial commitment that affirms the importance of these National Network services and infrastructure to state transportation systems, economies, and communities' quality of life.

Relieves Congestion – Amtrak removes almost 8 million cars from the road, and eases air congestion by eliminating the need for 50,000 airplanes each year. A typical Amtrak corridor train has the same capacity as six or more 50-seat regional jets, and a single train's capacity can be increased by adding cars.⁸

Helps Meet Current Travel Demand – More people travel through Amtrak's Penn Station in New York every day than through JFK, LaGuardia and Newark airports combined.⁹

Increases Freight Mobility – Approximately 70 freight trains per day use Amtrak-owned or maintained tracks to serve industries, power plants, ports, and other rail shippers or customers throughout the Northeast and in portions of three Midwestern states. The NEC transports 14 million car-miles of freight each year and links seaports with manufacturers to export goods.¹⁰ Major companies including Ford, John Deere, Mitsubishi, and Caterpillar with facilities in States

⁸ Amtrak, [Critical Link](#), 2007.

⁹ Amtrak, [New Passenger Information Displays Improve Customer Experience at Penn Station](#), October 11, 2016.

¹⁰ NEC Commission, [Investing in the Northeast Corridor](#), February 2016.

such as Illinois, Indiana, Iowa, and Kansas use the NEC to access ports in Baltimore and Wilmington to export their products abroad.¹¹

Economic Development – In 2014, Amtrak and its passengers generated an economic benefit of approximately \$10.8 billion, which supported 117,200 jobs and generated \$1.7 billion in taxes for Federal, State, and local governments.¹² In addition, station development yields sizable economic benefits including attracting housing and retail development, restored parks and civic and private buildings, an increase in housing and property rental values, and tourism growth. Recent station redevelopment examples include Normal, Illinois, and Brunswick, Maine.¹³

¹¹ NEC Commission, [Supporting Midwest Manufacturing Jobs and American Exports](#).

¹² Amtrak, [FY 2016 Budget and Business Plan](#).

¹³ Amtrak, [Great American Stations](#).

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NORTHEAST CORRIDOR GRANTS TO THE
NATIONAL RAILROAD PASSENGER CORPORATION (69-X-1774)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-1774-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
Obligations by program activity:				
0001	Grants for Northeast Corridor	317,002	315,000	194,000
0002	Management Oversight	153	2,000	2,000
0003	Northeast Corridor Commission	2,877	5,000	5,000
0004	American with Disabilities Act (ADA) ¹⁴	4,358	5,000	-
0900	Total new obligations	324,390	327,000	201,000
Budgetary Resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	-	4,000	3,000
1050	Unobligated balance (total)	-	4,000	3,000
Appropriations, discretionary:				
1100	Appropriation	328,000	326,000	200,000
1160	Appropriation, discretionary (total)	328,000	326,000	200,000
1930	Total budgetary resources available	328,000	330,000	203,000
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	3,610	3,000	2,000
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	-	3,000	4,000
3010	New obligations, unexpired accounts	324,390	327,000	201,000
3020	Outlays (gross)	(321,411)	(326,000)	(203,000)
3050	Unpaid obligations, end of year	2,979	4,000	2,000
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	-	3,000	4,000
3200	Obligated balance, end of year	2,979	4,000	2,000
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	328,000	326,000	200,000

¹⁴ Due to the reduction in funding, the President's Budget recommends providing more flexibility to determine the appropriate amount for ADA upgrades. This requirement can be handled through FRA's grant agreement with Amtrak.

Account
Number: 69-1774-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
	Outlays, gross:			
4010	Outlays from new discretionary authority	321,411	325,000	200,000
4011	Outlays from discretionary balances	-	1,000	3,000
4020	Outlays, gross (total)	321,411	326,000	203,000
4070	Budget authority, net (discretionary)	328,000	326,000	200,000
4080	Outlays, net (discretionary)	321,411	326,000	203,000
4180	Budget authority, net (total)	328,000	326,000	200,000
4190	Outlays, net (total)	321,411	326,000	203,000

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NATIONAL NETWORK GRANTS TO THE
NATIONAL RAILROAD PASSENGER CORPORATION (69-X-1775)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account

Number: 69-1775-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
Obligations by program activity:				
0001	Grants for National Network	1,113,523	1,106,000	533,000
0002	Management Oversight	1,368	5,000	3,000
0003	State-Supported Route Commission	1,151	3,000	2,000
0004	American with Disabilities Act (ADA) ¹⁵	45,642	45,000	-
0900	Total new obligations	1,161,684	1,159,000	538,000
Budgetary Resources:				
Unobligated balance:				
	Unobligated balance brought forward, Oct 1	-	5,000	5,000
	Unobligated balance (total)	-	5,000	5,000
Budget authority:				
1100	Appropriation	1,167,000	1,159,000	538,000
1160	Appropriation, discretionary (total)	1,167,000	1,159,000	538,000
1930	Total budgetary resources available	1,167,000	1,164,000	543,000
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	5,316	5,000	5,000
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	-	2,000	4,000
3010	New obligations, unexpired accounts	1,161,684	1,159,000	538,000
3020	Outlays (gross)	(1,160,473)	(1,157,000)	(541,000)
3050	Unpaid obligations, end of year	1,211	4,000	1,000
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	-	2,000	4,000
3200	Obligated balance, end of year	1,211	4,000	1,000

¹⁵ Due to the reduction in funding, the President's Budget recommends providing more flexibility to determine the appropriate amount for ADA upgrades. This requirement can be handled through FRA's grant agreement with Amtrak.

Account
Number: 69-1775-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	1,167,000	1,159,000	538,000
	Outlays, gross:			
4010	Outlays from new discretionary authority	1,160,473	1,156,000	537,000
4011	Outlays from discretionary balances	-	1,000	4,000
4020	Outlays, gross (total)	1,160,473	1,157,000	541,000
4070	Budget authority, net (discretionary)	1,167,000	1,159,000	538,000
4080	Outlays, net (discretionary)	1,160,473	1,157,000	541,000
4180	Budget authority, net (total)	1,167,000	1,159,000	538,000
4190	Outlays, net (total)	1,160,473	1,157,000	541,000

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
OPERATING SUBSIDY GRANTS TO AMTRAK (69-X-0121)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account

Number: 69-0121-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Operating subsidy grants	-	-	-
0900	Total new obligations	-	-	-
	Budgetary Resources:			
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	-	-	-
1930	Total budgetary resources available	-	-	-
	Change in obligated balance:			
3010	New obligations, unexpired accounts	-	-	-
3020	Outlays (gross)	-	-	-
	Budget authority and outlays, net:	-	-	-
	Discretionary:	-	-	-
4000	Budget authority, gross	-	-	-
	Outlays, gross:	-	-	-
4010	Outlays from new discretionary authority	-	-	-
		-	-	-
4070	Budget authority, net (discretionary)	-	-	-
4080	Outlays, net (discretionary)	-	-	-
4180	Budget authority, net (total)	-	-	-
4190	Outlays, net (total)	-	-	-

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL & DEBT SERVICE GRANTS TO THE
NATIONAL RAILROAD PASSENGER CORPORATION (69-X-0125)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0125-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
Obligations by program activity:				
0002	Capital and Debt Service Grants	4,256	2,000	-
0005	Grants Oversight	4,938	1,000	2,000
0006	Northeast Corridor Commission	-	-	-
0007	American Disability Act (ADA)	1,994	-	-
0900	Total new obligations	11,188	3,000	2,000
Budgetary Resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	23,718	13,000	10,000
Budget authority:				
Appropriations, discretionary:				
1160	Appropriation, discretionary (total)	-	-	-
		-	-	-
1930	Total budgetary resources available	23,718	13,000	10,000
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	12,530	10,000	8,000
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	323,230	66,000	7,000
3010	New obligations, unexpired accounts	11,188	3,000	2,000
3020	Outlays (gross)	(267,687)	(62,000)	(5,000)
3050	Unpaid obligations, end of year	66,731	7,000	4,000
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	323,230	66,000	7,000
3200	Obligated balance, end of year	66,731	7,000	4,000
Budget authority and outlays, net:				
Discretionary:				
Outlays, gross:				
4011	Outlays from discretionary balances	267,687	62,000	5,000
4080	Outlays, net (discretionary)	267,687	62,000	5,000
4180	Budget authority, net (total)	-	-	-
4190	Outlays, net (total)	267,687	62,000	5,000

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION (69-X-0704)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account

Number: 69-0704-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
Obligations by program activity:				
0007	Capital and Debt Grant Sandy Mitigation	-	31,000	-
0008	FTA Transfer – Hurricane Sandy Disaster Resiliency	-	14,000	-
0900	Total new obligations	-	45,000	-
Budgetary Resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	31,552	45,000	-
1011	Unobligated balance transfer from other account [069-1140]	13,480	-	-
1050	Unobligated balance (total)	45,032	45,000	-
1160	Appropriation, discretionary (total)	-	-	-
1930	Total budgetary resources available	45,032	45,000	-
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	45,032	-	-
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	15,977	5,000	45,000
3010	New obligations, unexpired accounts	-	45,000	-
3020	Outlays (gross)	(10,506)	(5,000)	(9,000)
3050	Unpaid obligations, end of year	5,471	45,000	36,000
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	15,977	5,000	45,000
3200	Obligated balance, end of year	5,471	45,000	36,000
Budget authority and outlays, net:				
Discretionary:				
Outlays, gross:				
4011	Outlays from discretionary balances	10,506	5,000	9,000
4080	Outlays, net (discretionary)	10,506	5,000	9,000
4190	Outlays, net (total)	10,506	5,000	9,000

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

Railroad Rehabilitation and Improvement Financing

RAILROAD REHABILITATION AND IMPROVEMENT FINANCING

The Secretary of Transportation is authorized to issue direct loans and loan guarantees pursuant to sections 501 through 504 of the Railroad Revitalization and Regulatory Reform Act of 1976 (Public Law 94–210), as amended, such authority to exist as long as any such direct loan or loan guarantee is outstanding.

EXHIBIT III-1
RAILROAD REHABILITATION AND IMPROVEMENT FINANCING PROGRAM
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)

	FY 2017 ACTUAL	FY 2018 ANNUALIZED CR	FY 2019 REQUEST
Railroad Rehabilitation and Improvement Financing Program	-	-	-
TOTAL	-	-	-
FTEs	-	-	-

Program and Performance Statement

The Transportation Equity Act of the 21st Century of 1998 established the Railroad Rehabilitation and Improvement Financing (RRIF) loan and loan guarantee program. The Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005: A Legacy for Users, changed the program to allow FRA to issue direct loan and loan guarantees up to \$35,000,000,000, and it required that no less than \$7,000,000,000 be reserved for projects primarily benefiting freight railroads other than Class I carriers. The program was expanded by the Rail Safety Improvement Act of 2008 and again by the Fixing America's Surface Transportation Act in 2015. Loans may be used: (1) to acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings, or shops; (2) to refinance debt; (3) to develop and establish new intermodal or railroad facilities, (4) to reimburse related planning and design expenses; (5) finance (by December 2019) certain economic development related to passenger rail stations.

For FY 2016, \$1.96 million was appropriated to assist Class II and Class III railroads in covering RRIF loan application expenses. No new funds are requested for this account for FY 2019.

DETAILED JUSTIFICATION RAILROAD REHABILITATION AND IMPROVEMENT FINANCING PROGRAM

FY 2019 – Railroad Rehabilitation and Improvement Financing – Budget Request \$000

Program Activity	FY 2017 Actual	FY 2018 Annualized CR	FY 2019 Request
Railroad Rehabilitation and Improvement Financing	-	-	-
TOTAL	-	-	-

What is this program and what does this funding level support?

The RRIF program is authorized to provide direct loans or loan guarantees up to \$35 billion of which \$7 billion is reserved for projects benefiting freight railroads other than Class I carriers.

RRIF loans may be used to:

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops, and costs related to these activities, including pre-construction costs;
- Refinance outstanding debt incurred for the purposes listed above;
- Develop or establish new intermodal or railroad facilities;
- Reimburse planning and design expenses related to the activities described above;
- Finance economic development, including commercial and residential development, and related infrastructure in certain circumstances (available through December 4, 2019.)

The program gives priority to projects that provide public benefits, including benefits to public safety, economic development and competitiveness in international markets, the environment, and transit-oriented development. In providing financial assistance through RRIF, the Department must fulfill its obligations under the National Environmental Policy Act and related laws, regulations, and orders.

The program serves a number of goals in the interest of increasing overall investment in the nation's network of rail infrastructure. Recently, the program has supported innovative projects such as the rail-component of Denver Union Station, critical safety investments like the New York Metropolitan Transportation Authority's work to comply with positive train control, and the procurement of next-generation high-speed trainsets for Amtrak's Acela service on the Northeast Corridor.

In early FY 2018, the Department closed one loan in the amount of \$220 million. Currently, the Department is evaluating three RRIF applications seeking a total of \$2.238 billion in financial assistance, with several additional potential RRIF applications in the pipeline.

Eligible applicants include government sponsored authorities and corporations, railroads, and other joint ventures with eligible applicants. Direct loans can be made for up to one hundred percent of the total project cost, for terms up to 35 years beyond substantial completion of the project, and at an interest rate not less than the cost of borrowing for a comparable term based on the current Treasury rate at the time of closing.

What benefits will be provided to the American public through this request and why is the program necessary?

The RRIF program is necessary to provide financing for rail projects that would not otherwise be funded through the private markets. For example, many short line railroads lack the capital funding necessary to invest in improvements to their infrastructure and equipment, and cannot easily access long-term financing from private financial institutions. FRA's 2014 study on the capital investment needs of Class II and Class III railroads found that a nearly \$7 billion funding gap exists to address these railroads' current and near-term capital needs.¹

Private sector loans with favorable rates are typically only available on short term loans. Short line railroads need long-term loans to support track and structure upgrades that will enjoy useful lives of 20 to 30 years. Given the greater risk of longer term repayments, these loans carry a much higher interest rate. The cost to upgrade and repair a rail line is expensive, but necessary, to avoid safety-related speed reductions and derailments. Of the 37 loans FRA has made since 2002, 14 were for less than \$10 million.

Likewise, the program has funded major safety investments and forward-leaning projects. In FY 2016, the Department issued its largest-ever loan, \$2.45 billion, to assist Amtrak in procuring 28 next-generation high-speed trainsets for the Acela service on the Northeast Corridor and undertaking major station improvements at Moynihan Station in New York City, Washington Union Station, Baltimore Penn Station, and New Carrollton Station in Maryland. These improvements will enable Amtrak to increase capacity and service levels to meet rising demand and improve the safety and reliability of service.

Additionally, in FY 2015, the Department issued a \$967 million loan to the New York Metropolitan Transportation Authority, the nation's largest commuter rail service provider, for deployment of positive train control, which is a requirement that most commuter railroads and short line railroad cannot accommodate in their annual capital budgets. In another example, the program was part of the financing package for the innovative Denver Union Station project, which combined multiple sources of public and private funds to promote livability and provide environmental, social, and economic benefits to the Denver region.

¹ FRA, [Summary of Class II and Class III Railroad Capital Needs and Funding Sources](#), October 2014.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION IMPROVEMENT FUND
PROGRAM ACCOUNT (69-0750)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number 69-0750-0-3-401

Line	Line Title	2017 ACT	2018 CY	2019 BY
Obligations by program activity:				
0001	Rounding Amount	-	-	-
	Credit program obligations:			
0705	Reestimates of direct loan subsidy	413	23,000	
0706	Interest on reestimates of direct loan subsidy	1,395	77,000	-
0709	Administrative expenses	797	1,000	-
0791	Direct program activities, subtotal	2,605	101,000	-
0900	Total new obligations	2,605	101,000	-
Budgetary resources:				
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	1,960	1,000	1,000
1001	Discretionary unobligated balance brought fwd, Oct 1	1,960	1,000	1,000
1050	Unobligated balance (total)	1,960	1,000	1,000
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	-	-	-
1160	Appropriation, discretionary (total)	-	-	-
	Appropriations, mandatory:			
1200	Appropriation	1,809	101,000	-
1260	Appropriations, mandatory (total)	1,809	101,000	-
1900	Budget authority (total)	1,809	101,000	-
1930	Total budgetary resources available	3,769	102,000	1,000
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	1,163	1,000	1,000
Change in obligated balance:				
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	-	1,000	-

Account
Number 69-0750-0-3-401

		2017	2018	2019
		ACT	CY	BY
Line	Line Title			
3010	New obligations, unexpired accounts	2,605	101,000	-
3020	Outlays (gross)	(1,896)	(102,000)	-
3050	Unpaid obligations, end of year	710	-	-
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	-	1,000	-
3200	Obligated balance, end of year	710	-	-
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	-	-	-
	Outlays, gross:			
4010	Outlays from new discretionary authority	-	-	-
4011	Outlays from discretionary balances	87	1,000	-
4020	Outlays, gross (total)	87	1,000	-
4070	Budget authority, net (discretionary)	-	-	-
4080	Outlays, net (discretionary)	87	1,000	-
	Mandatory:			
4090	Budget authority, gross	1,809	101,000	-
	Outlays, gross:			
4100	Outlays from new mandatory authority	1,809	101,000	-
4160	Budget authority, net (mandatory)	1,809	101,000	-
4170	Outlays, net (mandatory)	1,809	101,000	-
4180	Budget authority, net (total)	1,809	101,000	-
4190	Outlays, net (total)	1,896	102,000	-

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION IMPROVEMENT FUND
FINANCING ACCOUNT (69-4420)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number 69-4420-0-3-401

Line	Line Title	2017 ACT	2018 CY	2019 BY
Obligations by program activity:				
Credit program obligations:				
0710	Direct loan obligations	-	600,000	600,000
0713	Payment of interest to Treasury	44,731	38,000	38,000
0740	Negative Subsidy Obligations	-	-	-
0742	Downward reestimates paid to receipt accounts	6,738	67,000	-
0743	Interest on Downward reestimates	1,429	-	-
0900	Total new obligations, unexpired accounts	52,899	705,000	638,000
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	21,740	46,000	87,000
1050	Unobligated balance (total)	21,740	46,000	87,000
Financing Authority:				
Borrowing Authority, Mandatory:				
1400	Borrowing Authority	7,390	600,000	600,000
1440	Borrowing Authority, Mandatory (total)	7,390	600,000	600,000
Spending Authority from Offsetting collections, mandatory:				
1800 01	Offsetting Collections (interest on uninvested funds)	18,914	3,000	3,000
1800 02	Offsetting Collections (principal-borrowers)	661,496	60,000	60,000
1800 03	Offsetting Collections (upward reestimate)	1,809	101,000	-
1800 04	Offsetting Collections (interest-borrowers)	21,500	27,000	27,000
1800 05	Collected	7,974	17,000	10,000
1825	Spending Authority from Offsetting Collections applied to repay debt	(641,936)	(62,000)	(62,000)
1850	Spending auth from offsetting collections, mand (total)	69,756	146,000	38,000
1900	Budget Authority (total)	77,146	746,000	638,000

Account
Number 69-4420-0-3-401

		2017	2018	2019
Line	Line Title	ACT	CY	BY
1930	Total budgetary resources available	98,886	792,000	725,000
	Memorandum (non-add) entries:			
1941	Unexpired Unobligated balance, end of year	45,988	87,000	87,000
	Change in obligated balance:			
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	3,423,822	3,287,000	3,356,000
3010	New obligations, unexpired accounts	52,899	705,000	638,000
3020	Outlays (gross)	(190,374)	(636,000)	(636,000)
3040	Recoveries of prior year unpaid obligations, unexpired	-	-	-
3050	Unpaid Obligations, end of year	3,286,346	3,356,000	3,358,000
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	3,423,822	3,287,000	3,356,000
3200	Obligated balance, end of year	3,286,346	3,356,000	3,358,000
	Financing authority and disbursements, net:			
	Mandatory:			
4090	Budget authority, gross	77,146	746,000	638,000
	Financing disbursements:			
4110	Outlays, gross (total)	190,374	636,000	636,000
	Offsets against gross financing authority and disbursements:			
	Offsetting Collections (collected) from:			
4120	Federal sources	(1,809)	(101,000)	-
4122	Interest on uninvested funds	(18,914)	(3,000)	(3,000)
4123 01	Credit Risk Premium	(7,974)	(17,000)	(10,000)
4123 02	Principal Repayment	(661,496)	(60,000)	(60,000)
4123 03	Interest Repayment	(21,500)	(27,000)	(27,000)
4130	Offsets against gross budget authority and outlays	(711,693)	(208,000)	(100,000)
4160	Budget Authority, net (mandatory)	(634,547)	538,000	538,000
4170	Outlays, net (mandatory)	(521,318)	428,000	536,000
4180	Budget Authority, net (total)	(634,547)	538,000	538,000
4190	Outlays, net (total)	(521,318)	428,000	536,000

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NORTHEAST CORRIDOR IMPROVEMENT PROGRAM (69-X-0123)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0123-0-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Northeast Corridor Improvement Program	-	20,000	-
0900	Total new obligations	-	20,000	-
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	20,163	20,000	-
1050	Unobligated balance (total)	20,163	20,000	-
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	-	-	-
1160	Appropriation, disc (total)	-	-	-
1930	Total budgetary resources available	20,163	20,000	-
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	20,163	-	-
	Change in obligated balance:			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	-	-	19,000
3010	Obligations incurred, unexpired accounts	-	20,000	-
3020	Outlays (gross)	-	(1,000)	(3,000)
3050	Unpaid obligations, end of year (gross)	-	19,000	16,000
3100	Obligated balance, start of year (net)	-	-	19,000
3200	Obligated balance, end of year	-	19,000	16,000
	Budget authority and outlays, net:			
	Discretionary:			
	Outlays, gross:			
4011	Outlays from discretionary balances	-	1,000	3,000
4080	Outlays, net (discretionary)	-	1,000	3,000
4180	Budget authority, net (Disc. And Mand.)	-	-	-
4190	Outlays, net (total)	-	1,000	3,000

Program and Performance Statement

Prior to FY 2001, this program provided funds to continue the upgrade of passenger rail service in the corridor between Washington, District of Columbia and Boston, Massachusetts. For FY 2016, \$19 million was appropriated for grants to Amtrak for shared use infrastructure on the Northeast Corridor identified in the Northeast Corridor Infrastructure and Operations Advisory Commission's 5-year capital plan.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RESTORATION AND ENHANCEMENT GRANTS (69-X-0127)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0127-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Restoration and Enhancement Grants	-	-	3,000
0002	Restoration and Enhancement Oversight	-	-	-
0900	Total new obligations	-	-	3,000
	Budgetary resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	-	5,000	10,000
1050	Unobligated balance (total)	-	5,000	10,000
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	5,000	5,000	-
1160	Appropriation, disc (total)	5,000	5,000	-
1930	Total budgetary resources available	5,000	10,000	10,000
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	5,000	10,000	7,000
	Change in obligated balance:			
3000	Unpaid obligations, brought forward, Oct 1	-	-	-
3010	Obligations incurred, unexpired accounts	-	-	3,000
3050	Unpaid obligations, end of year (gross)	-	-	3,000
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year (net)	-	-	-
3200	Obligated balance, end of year	-	-	3,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	5,000	5,000	-
4070	Budget authority, net (discretionary)	5,000	5,000	-
4180	Budget authority, net (total)	5,000	5,000	-
4190	Outlays, net (total)	-	-	-

Program and Performance Statement

Funding requested in the Restoration and Enhancement Grants account are intended to provide operating assistance to initiate, restore, or enhance intercity passenger rail transportation. The program limits assistance to three years per route and no more than six grants may be simultaneously active. Eligible recipients include states, local governments, Amtrak or other rail carriers that provide intercity passenger rail service, and any rail carrier in partnership with another eligible public-sector applicant. The program was authorized in 2015 by the Fixing America's Surface Transportation Act.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD SAFETY TECHNOLOGY (69-X-0701)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account

Number: 69-0701-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Railroad Safety Technology Program	-	-	-
0900	Total new obligations	-	-	-
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	112	-	-
1050	Unobligated balance (total)	112	-	-
	Budget authority:			
	Appropriations, discretionary:			
1160	Appropriation, disc (total)	-	-	-
1930	Total budgetary resources available	112	-	-
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	5,749	5,000	-
3020	Outlays (gross)	(1,413)	(5,000)	-
3050	Unpaid obligations, end of year	4,336	-	-
3100	Obligated balance, start of year (net)	5,749	5,000	-
3200	Obligated balance, end of year (net)	4,336	-	-
	Budget authority and outlays, net:			
	Discretionary:			
	Outlays, gross:			
4011	Outlays from discretionary balances	1,413	5,000	-
4080	Outlays, net (discretionary)	1,413	5,000	-
4190	Outlays, net (total)	1,413	5,000	-

Program and Performance Statement

The Railroad Safety Technology Program is a competitive grant program for the deployment of train control technologies to passenger and freight rail carriers, railroad suppliers, and State and local governments. Projects may include the deployment of train control technologies, train control component technologies, processor-based technologies, electronically controlled pneumatic brakes, rail integrity inspection systems, rail integrity warning systems, switch position indicators and monitors, remote control power switch technologies, track integrity circuit technologies, and other new technologies that improve the safety of railroad systems.

FRA has given priority to projects that make technologies interoperable between railroad systems; accelerate the deployment of train control technology on high risk corridors, such as those that have high volumes of hazardous materials shipments, or over which commuter or passenger trains operate; or benefit both passenger and freight safety and efficiency.

No new funds are requested for this account for FY 2019. The FAST Act did not authorize new funding for the Railroad Safety Technology Grants program.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD SAFETY GRANTS (69-0702)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0702-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Railroad Safety Grants	20,505	34,000	-
0900	Total new obligations	20,505	34,000	-
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	55,040	34,000	-
1050	Unobligated balance (total)	55,040	34,000	-
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	-	-	-
1160	Appropriation, disc (total)	-	-	-
1930	Total budgetary resources available	55,040	34,000	-
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	34,535	-	-
	Change in obligated balance:			
3000	Unpaid obligations, brought forward, Oct 1	4,967	26,000	44,000
3010	New obligations, unexpired accounts	20,505	34,000	-
3020	Outlays (gross)	(35)	(16,000)	(14,000)
3050	Unpaid obligations, end of year (gross)	25,437	44,000	30,000
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year (net)	4,967	26,000	44,000
3200	Obligated balance, end of year	25,437	44,000	30,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	-	-	-
	Outlays, gross:			
4011	Outlays from discretionary balances	35	16,000	14,000

Account
Number: 69-0702-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
4080	Outlays, net (discretionary)	35	16,000	14,000
4180	Budget authority, net (total)	-	-	-
4190	Outlays, net (total)	35	16,000	14,000

Program and Performance Statement

For FY 2016, \$50 million was appropriated under the Railroad Safety Grants heading to be equally distributed to Railroad Safety Infrastructure Improvement Grants and Railroad Safety Technology Grants. The FAST Act repealed the Railroad Safety Infrastructure Improvement Grants program and did not authorize new funding for the Railroad Safety Technology Grants program.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
INTERCITY PASSENGER RAIL GRANT PROGRAM (69-X-0715)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account

Number: 69-0715-0-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Intercity Passenger Rail Grants	2,081	-	-
0900	Total new obligations	2,081	-	-
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	11,687	10,000	10,000
1021	Recoveries of prior year unpaid obligations	-	-	-
1050	Unobligated balance (total)	11,687	10,000	10,000
1930	Total budgetary resources available	11,687	10,000	10,000
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	9,606	10,000	10,000
	Change in obligated balance:			
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	21,717	24,000	3,000
3010	New obligations, unexpired accounts	2,081	-	-
3020	Outlays (gross)	(95)	(21,000)	(2,000)
3040	Recoveries of prior year unpaid obligations, Unexpired	-	-	-
3050	Unpaid obligations, end of year	23,703	3,000	1,000
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	21,717	24,000	3,000
3200	Obligated balance, end of year	23,703	3,000	1,000
	Budget authority and outlays, net:			
	Discretionary:			
	Outlays, gross:			
4011	Outlays from discretionary balances	95	21,000	2,000
4080	Outlays, net (discretionary)	95	21,000	2,000
4190	Outlays, net (total)	95	21,000	2,000

Program and Performance Statement

This competitive grant program encourages state participation in passenger rail service. Under this program, a State or States may apply for grants for up to 50 percent of the cost of capital investments necessary to support improved intercity passenger rail service that either requires no operating subsidy or for which the State or States agree to provide any needed operating subsidy. To qualify for funding, States must include intercity passenger rail service as an integral part of statewide transportation planning as required under 23 U.S.C. 135. Additionally, the specific project must be on the Statewide Transportation Improvement Plan at the time of application.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM (69-X-0716)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0716 -0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Rail Line Relocation	-	2,000	2,000
0900	Total new obligations	-	2,000	2,000
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	10,204	13,000	11,000
1021	Recoveries of prior year unpaid obligations	2,609	-	-
1050	Unobligated balance (total)	12,812	13,000	11,000
1131	Unobligated balance of appropriations, permanently reduced	-	-	(2,000)
1930	Total budgetary resources available	12,812	13,000	9,000
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	12,812	11,000	7,000
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	10,312	4,000	2,000
3010	Obligations incurred, unexpired accounts	-	2,000	2,000
3020	Outlays (gross)	(3,423)	(4,000)	(1,000)
3040	Recoveries of prior year unpaid obligations, unexpired	(2,609)	-	-
3050	Unpaid obligations, end of year (gross)	4,280	2,000	3,000
3100	Obligated balance, start of year (net)	10,312	4,000	2,000
3200	Obligated balance, end of year	4,280	2,000	3,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	-	-	(2,000)

Account
Number: 69-0716 -0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
4011	Outlays from discretionary balances	3,423	4,000	1,000
4070	Budget authority, net (discretionary)	-	-	(2,000)
4080	Outlays, net (discretionary)	3,423	4,000	1,000
4180	Budget authority, net (total)	-	-	(2,000)
4190	Outlays, net (total)	3,423	4,000	1,000

Program and Performance Statement

This program provides Federal assistance to States for relocating or making necessary improvements to local rail lines. The program was repealed by the Fixing America's Surface Transportation (FAST) Act; however, the project eligibilities are included under the FAST Act authorized Consolidated Rail Infrastructure and Safety Improvements program.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL ASSISTANCE HIGH-SPEED RAIL ACCOUNT (69-X-0719)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-X-0719-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0003	Capital Assistance High-Speed Rail Corridors and IPR Service Grants	-	-	-
0004	Capital Assistance High-Speed Rail Corridors and IPR Service Oversight	9,636	1,000	-
0006	Capital Assistance High-Speed Rail Corridors and IPR Service Planning Activities	1,436	-	1,000
0900	Total new obligations	11,073	1,000	1,000
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	66,467	55,000	55,000
1021	Recoveries of prior year unpaid obligations	486	1,000	1,000
1050	Unobligated balance (total)	66,953	56,000	56,000
	Budget authority:			
	Appropriations, discretionary:			
1131	Unobligated balance of appropriations permanently reduced	-	-	(53,000)
1160	Appropriation, discretionary (total)	-	-	(53,000)
1930	Total budgetary resources available	66,953	56,000	3,000
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	55,880	55,000	2,000
	Change in obligated balance:			
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	4,124,494	1,346,000	1,044,000
3010	New obligations, unexpired accounts	11,073	1,000	1,000
3020	Outlays (gross)	(2,578,699)	(302,000)	(82,000)
3040	Recoveries of prior year unpaid obligations, unexpired	(486)	(1,000)	(1,000)

Account
Number: 69-X-0719-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
3041	Recoveries of prior year unpaid obligations, expired	(209,708)	-	-
3050	Unpaid obligations, end of year	1,346,674	1,044,000	962,000
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year (net)	4,124,494	1,346,000	1,044,000
3200	Obligated balance, end of year	1,346,674	1,044,000	962,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	-	-	(53,000)
	Outlays, gross:			
4011	Outlays from discretionary balances	2,578,699	302,000	82,000
4070	Budget authority, net (discretionary)	-	-	(53,000)
4080	Outlays, net (discretionary)	2,578,699	302,000	82,000
4180	Budget authority, net (total)	-	-	(53,000)
4190	Outlays, net (total)	2,578,699	302,000	82,000

Program and Performance Statement

Through this program, FRA provides capital grants to States to invest and improve intercity passenger rail service, including the development of new high-speed rail capacity. Activity in this account includes the \$8 billion provided by the American Recovery and Reinvestment Act of 2009 and an additional \$2.1 billion provided in subsequent enacted appropriations.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NEXT GENERATION HIGH SPEED RAIL (69-X-0722)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account
Number: 69-0722-X-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
Obligations by program activity:				
0003	Next Generation High Speed Rail	-	1,000	1,000
0900	Total new obligations	-	1,000	1,000
Budgetary Resources:				
1000	Unobligated balance brought forward, Oct 1	3,543	4,000	3,000
1021	Recoveries of prior year unpaid obligations	72	-	-
1050	Unobligated balance (total)	3,615	4,000	3,000
Budget authority:				
1131	Unobligated balance of appropriations permanently reduced	-	-	-
1160	Appropriation, disc (total)	-	-	-
1930	Total budgetary resources available	3,615	4,000	3,000
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	3,615	3,000	2,000
Change in obligated balance:				
3000	Unpaid obligations, brought forward, Oct 1 (gross)	2,528	2,000	2,000
3010	Obligations incurred, unexpired accounts	-	1,000	1,000
3020	Outlays (gross)	(1,379)	(1,000)	-
3040	Recoveries of prior year unpaid obligations, unexpired accounts	(72)	-	-
3050	Unpaid obligations, end of year (gross)	1,077	2,000	3,000
3100	Obligated balance, start of year (net)	2,528	2,000	2,000
3200	Obligated balance, end of year	1,077	2,000	3,000
Budget authority and outlays, net:				
Discretionary:				
4011	Outlays from discretionary balances	1,379	1,000	-
4080	Outlays, net (discretionary)	1,379	1,000	-
4180	Budget authority, net (total)	-	-	-
4190	Outlays, net (total)	1,379	1,000	-

Program and Performance Statement

The Next Generation High-Speed Rail Program funds research, development, technology demonstration programs, and the planning and analysis required to evaluate high speed rail technology proposals.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
PENNSYLVANIA STATION REDEVELOPMENT PROJECT (69-X-0723)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account

Number: 69-0723 -0-1-401

Line	Line Title	FY 2017 ACT	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0002	Pennsylvania Station risk reduction projects	-	40,000	-
0900	Total new obligations	-	40,000	-
	Budgetary resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	40,200	40,000	-
1011	Unobligated balance transfer from other accounts [069-1140]	-	-	-
1050	Unobligated balance (total)	40,200	40,000	-
1930	Total budgetary resources available	40,200	40,000	-
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	40,200	-	-
	Change in obligated balance:			
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	13,836	2,000	40,000
3010	New obligations, unexpired accounts	-	40,000	-
3020	Outlays (gross)	(11,675)	(2,000)	(8,000)
3050	Unpaid obligations, end of year	2,161	40,000	35,000
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	13,836	2,000	40,000
3200	Obligated balance, end of year	2,161	40,000	32,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	-	-	-
	Outlays, gross:			
4011	Outlays from discretionary balances	11,675	2,000	8,000
4070	Budget authority, net (discretionary)	-	-	-
4080	Outlays, net (discretionary)	11,675	2,000	8,000
4180	Budget authority, net (total)	-	-	-
4190	Outlays, net (total)	11,675	2,000	8,000

Program and Performance Statement

Funds are used to redevelop the Pennsylvania Station in New York City, which involves renovating the James A. Farley Post Office building as Moynihan Station. Funding for this project was included in the Grants to the National Railroad Passenger Corporation appropriation in 1995 through 1997, and the Northeast Corridor Improvement Program in 1998. In 2000, FRA received an advance appropriation of \$20 million for 2001, 2002, and 2003. In 2001, the Congress specified that the \$20 million advance appropriation for the Farley Building be used exclusively for fire and life safety initiatives. In FY 2016, \$40 million was transferred from the Federal Transit Administration's Hurricane Sandy funding into this account for risk reduction projects at Moynihan Station.

No new funds are requested for this account in FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
FEDERAL-STATE PARTNERSHIP FOR STATE OF GOOD REPAIR (69-X-2810)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)**

Account

Number: 69-2810-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
Obligations by program activity:				
0001	Federal-State Partnership for State of Good Repair Grants	-	-	13,000
0002	Federal-State Partnership for State of Good Repair Oversight	-	-	-
0900	Total new obligations	-	-	13,000
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	-	25,000	50,000
1050	Unobligated balance (total)	-	25,000	50,000
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	25,000	25,000	-
1160	Appropriation, disc (total)	25,000	25,000	-
1930	Total budgetary resources available	25,000	50,000	50,000
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	25,000	50,000	37,000
Change in obligated balance:				
3000	Unpaid obligations, brought forward, Oct 1	-	-	-
3010	Obligations incurred, unexpired accounts	-	-	13,000
3050	Unpaid obligations, end of year (gross)	-	-	13,000
Memorandum (non-add) entries:				
3100	Obligated balance, start of year (net)	-	-	-
3200	Obligated balance, end of year	-	-	13,000
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	25,000	25,000	-
4070	Budget authority, net (discretionary)	25,000	25,000	-
4180	Budget authority, net (total)	25,000	25,000	-
4190	Outlays, net (total)	-	-	-

Program and Performance Statement

Funding requested in the Federal-State Partnership for State of Good Repair account are intended to reduce the state of good repair backlog on publicly-owned or Amtrak-owned infrastructure, equipment and facilities. Eligible activities include capital projects to (1) replace existing assets in-kind or with assets that increase capacity or service levels, (2) ensure that service can be maintained while existing assets are brought into a state of good repair, and (3) bring existing assets into a state of good repair. Eligible recipients include states, local governments and Amtrak. The program was authorized in 2015 by the Fixing America's Surface Transportation Act.

No new funds are requested for this account for FY 2019.

FEDERAL RAILROAD ADMINISTRATION
CONSOLIDATED RAIL INFRASTRUCTURE AND SAFETY IMPROVEMENTS (69-X-2811)
PROGRAM AND FINANCING
IN THOUSANDS OF DOLLARS (\$000)

Account

Number: 69-2811-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Obligations by program activity:			
0001	Consolidated Rail Infrastructure and Safety Improvements Grants	-	-	34,000
0002	Consolidated Rail Infrastructure and Safety Improvements Oversight	-	-	-
0900	Total new obligations	-	-	34,000
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	-	68,000	136,000
1050	Unobligated balance (total)	-	68,000	136,000
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	68,000	68,000	-
1160	Appropriation, disc (total)	68,000	68,000	-
1930	Total budgetary resources available	68,000	136,000	136,000
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	68,000	136,000	102,000
	Change in obligated balance:			
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	-	-	-
3010	Obligations incurred, unexpired accounts	-	-	34,000
3020	Outlays (gross)	-	-	(1,000)
3050	Unpaid obligations, end of year (gross)	-	-	33,000
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year (net)	-	-	-
3200	Obligated balance, end of year	-	-	33,000
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	68,000	68,000	-

Account
Number: 69-2811-0-1-401

Line	Line Title	FY 2017 Act	FY 2018 CY	FY 2019 BY
	Outlays, gross:			
4011	Outlays from discretionary balances	-	-	1,000
4070	Budget authority, net (discretionary)	68,000	68,000	-
4080	Outlays, net (discretionary)	-	-	1,000
4180	Budget authority, net (total)	68,000	68,000	-
4190	Outlays, net (total)	-	-	1,000

Program and Performance Statement

Funding requested in the Consolidated Rail Infrastructure and Safety Improvements account are intended to improve the safety, efficiency and reliability of passenger and freight rail systems. Eligible activities include a wide range of freight and passenger rail capital, planning, environmental analyses, research, workforce development, and training projects. Eligible recipients include states, local governments, Class II and Class III railroads, Amtrak and other intercity passenger rail operators, rail carriers and equipment manufacturers that partner with an eligible public-sector applicant, the Transportation Research Board, University Transportation Centers, and non-profit rail labor organizations. The program was authorized in 2015 by the Fixing America's Surface Transportation Act.

No new funds are requested for this account for FY 2019.

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

**ADMINISTRATIVE PROVISIONS
APPROPRIATIONS LANGUAGE**

ADMINISTRATIVE PROVISIONS

Sec. 150. None of the funds provided to the National Railroad Passenger Corporation may be used to fund any overtime costs in excess of \$35,000 for any individual employee: *Provided*, That the President of Amtrak may waive the cap set in the previous proviso for specific employees when the President of Amtrak determines such a cap poses a risk to the safety and operational efficiency of the system: *Provided further*, That the President of Amtrak shall report to the House and Senate Committees on Appropriations each quarter of the calendar year on waivers granted to employees and amounts paid above the cap for each month within such quarter and delineate the reasons each waiver was granted: *Provided further*, That the President of Amtrak shall report to the House and Senate Committees on Appropriations by March 1, ~~2018~~ 2019, a summary of all overtime payments incurred by the Corporation for ~~2017~~ 2018 and the three prior calendar years: *Provided further*, That such summary shall include the total number of employees that received waivers and the total overtime payments the Corporation paid to those employees receiving waivers for each month for ~~2017~~ 2018 and for the three prior calendar years.

Explanation: The above language from the FY 2018 budget request act is updated for FY 2019.

Sec. 151. Notwithstanding section 1302 of title 40, United States Code, the Federal Railroad Administration may lease to others or enter into contracts, for such consideration, and subject to such terms and conditions, as it determines to be in the best interests of the government, for a term of up to 20 years for the continued operation and maintenance and capital reinvestment of the Transportation Technology Center near Pueblo, Colorado.

Explanation: The President's Budget seeks legislative language to further strengthen FRA's investment in and management of the Transportation Technology Center (TTC). The language would enable FRA to continue cost-effectively managing the facility through a third party, while providing significant railroad safety benefits.

Sec. 152. RAILROAD SAFETY USER FEES.

(a) SCHEDULE OF RAILROAD SAFETY USER FEES. The Secretary of Transportation shall prescribe by regulation, for application in fiscal year 2019 and in subsequent fiscal years, a schedule of rail safety fees for railroad carriers subject to Part A of Subtitle V of title 49, United States Code. The fees shall be imposed fairly on

railroad carriers, in reasonable relationship to appropriate criteria to be developed by the Secretary.

(b) COLLECTION PROCEDURES. The Secretary shall prescribe procedures to collect the fees. The Secretary may use the services of a department, agency, or instrumentality of the United States Government or a State or local authority to collect the fees, and may reimburse the department, agency, instrumentality, or authority a reasonable amount for its services.

(c) COLLECTION, DEPOSIT, AND USE.—

(1) Fees collected under this section shall be deposited in the Federal Railroad Administrations Safety and Operations account as offsetting collections.

(2) Such fees shall be collected and available to the extent provided in appropriations acts.

Explanation: The President's Budget proposes to impose a user fee that would reimburse the Federal Railroad Administration for the operational costs of rail safety inspectors and activities. Like other regulated industries, railroads benefit directly and indirectly from the government's efforts to ensure high safety standards, and it is therefore appropriate for railroads to bear some of the cost. FRA will begin collecting \$50 million in 2019.

Sec. 153. Of the unobligated balances of funds remaining from—

(a) Public Law 111–117 appropriated to "Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service", a total of \$53,404,128.31 is hereby permanently cancelled;

(b) Public Law 110–161 appropriated to "Rail Line Relocation and Improvement Program", a total of \$340,861.51 is hereby permanently cancelled;

(c) Public Law 111–8 appropriated to "Rail Line Relocation and Improvement Program", a total of \$485,764.84 is hereby permanently cancelled; and

(d) Public Law 111–117 appropriated to "Rail Line Relocation and Improvement Program", a total of \$1,495,398 is hereby permanently cancelled.

Explanation: The President's Budget proposes to impose a one-time rescission in the amount of \$55.7 million obtained from unobligated carry-over grant funding.

EXHIBIT IV-1

**FEDERAL RAILROAD ADMINISTRATION
RESEARCH, DEVELOPMENT, AND TECHNOLOGY
BUDGET AUTHORITY
(\$000)**

	FY 2017 Enacted	FY 2018 Annualized CR	FY 2019 Request	FY 2019 Applied	FY 2019 Development
<u>By Account/Program</u>					
Railroad Research and Development Account	40,100	39,828	19,550	10,145	9,405
Track Program	11,279	11,202	6,000	3,498	2,502
Rolling Stock Program	10,322	10,252	5,760	3,488	2,272
Train Control and Communication	8,086	8,031	4,400	1,570	2,830
Human Factors Program	5,542	5,505	2,090	870	1,220
Railroad Systems Issues Program	4,871	4,838	1,300	719	581
Safety and Operations	3,777	3,843	3,843	2,460	1,383
Salaries & Benefits	3,777	3,843	3,843	2,460	1,383
Total FRA	43,877	43,671	23,393	12,605	10,788
<u>By Function</u>					
Subtotal, Research & Development	40,876	40,670	20,392	12,605	10,788
Subtotal, Facilities (F)	3,001	3,001	3,001	N/A	N/A
Total, FRA	43,877	43,671	23,393	12,605	10,788

FEDERAL RAILROAD ADMINISTRATIONS
HISTORY OF APPROPRIATIONS
FY 2009 – 2018
(\$000)

Account	FY 2009	FY 2010	FY 2011 ^{2/}	FY 2012	FY 2013 ^{4/}	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018 ^{10/}
Safety and Operations	159,445	172,270	176,596	178,596	169,254	184,500	186,870	199,000	218,298	216,816
Safety and Operations	--	--	--	--	--	--	--	(6,710) ^{7/}	--	--
Rail Safety Technology Program	--	50,000	--	--	--	--	--	--	--	--
Railroad Research and Development	33,950	37,613	35,030	35,000	33,169	35,250	39,100	39,100	40,100	39,828
Railroad Research and Development	--	--	--	--	--	--	--	(1,960) ^{7/}	--	--
Rail Line Relocation and Improvement Program	25,000	34,532	10,511	--	--	--	--	(2,241) ^{7/}	--	--
Railroad Safety Grants	--	--	--	--	--	--	10,000	50,000	--	--
Consolidated Rail Infrastructure and Safety Improvements	--	--	--	--	--	--	--	--	68,000	67,538
Federal-State Partnership for State of Good Repair	--	--	--	--	--	--	--	--	25,000	24,830
Restoration and Enhancement Grants	--	--	--	--	--	--	--	--	5,000	4,966
Northeast Corridor Grants to the National Railroad Passenger Corporation	--	--	--	--	--	--	--	--	328,000	325,773
National Network Grants to the National Railroad Passenger Corporation	--	--	--	--	--	--	--	--	1,167,000	1,159,075
Operating Grants to the National Railroad Passenger Corporation	550,000	563,000	563,000	466,000	441,625	340,000	250,000	288,500	--	--
Capital and Debt Service Grants to the National Railroad Passenger Corporation	940,000	1,001,625	920,652	952,000	902,205	1,050,000	1,140,000	1,101,500	--	--
Capital and Debt Service Grants to the National Railroad Passenger Corporation	--	--	--	--	--	--	--	(5,000) ^{7/}	--	--
Grants to the National Railroad Passenger Corporation	--	--	--	--	297,100 ^{5/}	--	--	(267) ^{7/}	13,480 ^{8/}	--
Pennsylvania Station Redevelopment Project	--	--	--	--	--	--	--	40,200 ^{8/}	--	--
Intercity Passenger Rail Grant Program	90,000	--	--	--	--	--	--	--	--	--
Next Generation High-Speed Rail	--	--	--	--	--	(1,973) ^{6/}	--	(4,945) ^{7/}	--	--
Northeast Corridor Improvement Program	--	--	--	--	--	(4,419) ^{6/}	--	19,163	--	--
Capital Assistance for HSR Corridors and IPR	--	2,500,000	(400,000) ^{3/}	--	--	--	--	--	--	--
Railroad Rehabilitation and Improvement Financing Program	16,753	18,441	23,692	16,905	33,445	43,845	31,455	2,523	1,809	100,371
Capital Grants to National Railroad Passenger Corporation	1,300,000 ^{1/}	--	--	--	--	--	--	--	--	--
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	8,000,000 ^{1/}	--	--	--	--	--	--	--	--	--
Total FRA Budget Authority	11,115,148	4,377,481	1,329,481	1,648,501	1,876,798	1,647,203	1,657,425	1,718,863	1,866,687	1,939,197

Notes:

- 1/ FY 2009 ARRA appropriations (P.L. 111-5) reflects \$1.3B for Amtrak and \$8.0B for HSIPR.
2/ FY 2011 full-year CR appropriations (P.L. 112-10) reflect a 0.02% across-the-board rescission.
3/ FY 2011 appropriations (P.L. 112-10) reflect a \$400M rescission of prior year unobligated balances.
4/ FY 2013 figures reflect 0.2% rescission and sequestered amounts excluded.
5/ The Disaster Relief Appropriations Act of FY 2013 (P.L. 113-2) provided funds to Amtrak for Hurricane Sandy, including \$32 million for repair work and \$86 million for disaster mitigation projects, less sequestration. Also in FY 2013, \$185 million was transferred from FTA to FRA for the Hudson Yards Project.
6/ FY 2014 Omnibus (P.L. 113-76) reflects rescissions on prior year unobligated balances of \$4.419M from the Northeast Corridor Improvement Program and \$1.973M from the Next Generation High-Speed Rail.
7/ FY 2016 Omnibus (P.L. 114-113) reflects the following rescissions from prior year unobligated balances: \$6,710,477 from Safety & Operations, \$1,960,000 from Railroad Research and Development, \$2,241,385 from Rail Line Relocation and Improvement, \$5,000,000 from Capital and Debt Service Grants to the National Railroad Passenger Corporation (NEC 2015), \$267,019 from Grants to the National Railroad Passenger Corporation, and \$4,944,504 from Next Generation High-Speed Rail.
8/ In FY 2016, \$40.2M from the Disaster Relief Appropriations Act of FY 2013 (P.L. 113-2) was transferred from FTA to FRA for risk reduction projects at Pennsylvania Station, which was an area impacted by Hurricane Sandy.
9/ In FY 2017, \$13.48M from the Disaster Relief Appropriations Act of FY 2013 (P.L. 113-2) was transferred from FTA to FRA for the MTA/LIRR River to River Rail Resilience project, which was an area impacted by Hurricane Sandy.
10/ A full-year FY 2018 budget was not enacted at the time this publication was prepared. The amounts included for FY 2018 reflect the annualized level provided by the continuing resolution, which includes a 0.6791% across-the-board rescission.