



**U.S. Department of
Transportation**

BUDGET ESTIMATES

FISCAL YEAR 2020

**NATIONAL HIGHWAY
TRAFFIC SAFETY
ADMINISTRATION**

**SUBMITTED FOR THE USE OF
THE COMMITTEES ON APPROPRIATIONS**

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Table of Contents

Section I: Overview

Overview	1
FY 2019 Organizational Chart	6
FY 2020 Organizational Chart	7

Section II: Budget Summary Tables

Comparative Statement of New Budget Authority (Exhibit II-1).....	9
Budgetary Resources by Appropriation (Exhibit II-2).....	10
Budgetary Resources by Strategic Goal (Exhibit II-3)	11
Budget Authority (Exhibit II-4)	12
Outlays (Exhibit II-5)	13
Analysis of Change Table (Appropriations, Obligation Limitation, and Exempt Obligations) (Exhibit II-6)	14
Working Capital Fund (Exhibit II-7)	18
Full-time Equivalent Employment (FTE) (Exhibit II-8).....	19
Full-time Permanent Position (FTP) (Exhibit II-9).....	20

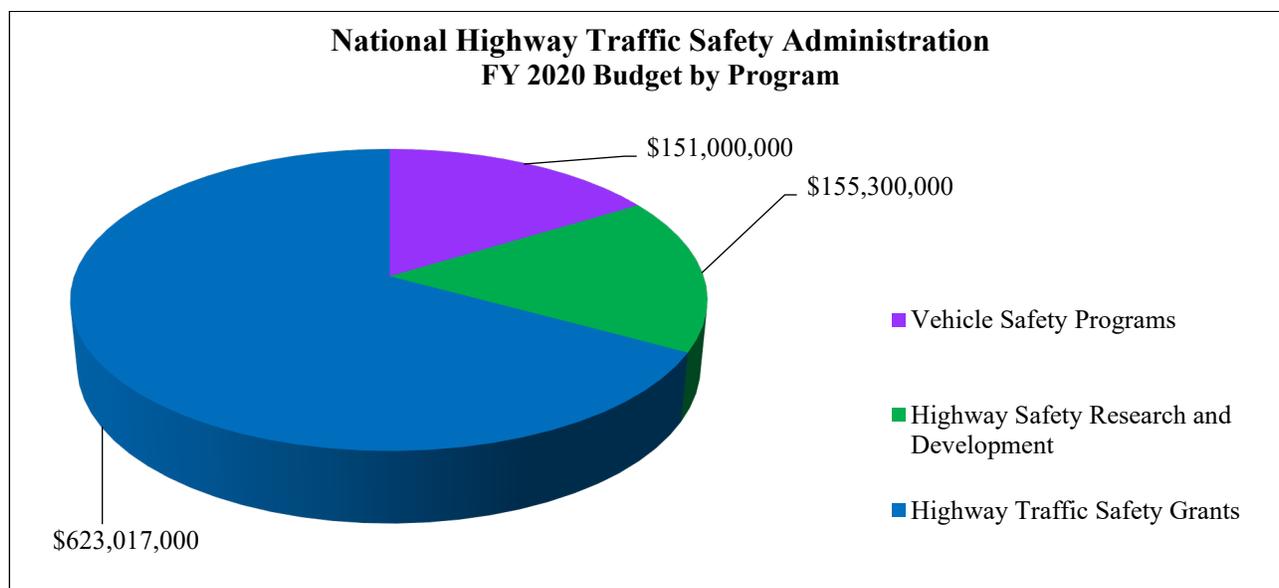
Section III: Budget Request by Account

Appropriation Language – Operations and Research - Vehicle Safety	21
Appropriation Language – Operations and Research - Highway Safety R&D.....	22
Appropriation Language – Highway Traffic Safety Grants	23
Administrative Provisions	24
Vehicle Safety – Summary by Program Activity (Exhibit III-1).....	25
Vehicle Safety Program and Performance Statement	26
Vehicle Safety Research & Analysis Detailed Justification by Program Activity	29
Rulemaking Detailed Justification by Program Activity	47
Enforcement Detailed Justification by Program Activity	55
Vehicle Safety Administrative Expenses Summary	64

Highway Safety R&D – Summary by Program Activity (Exhibit III-1)	65
Highway Safety R&D Program and Performance Statement	66
Highway Safety Programs Detailed Justification by Program Activity.....	68
National Center for Statistics & Analysis Detailed Justification by Program Activity	107
Highway Safety R&D Administrative Expenses Summary	120
Highway Traffic Safety Grants – Summary by Program Activity (Exhibit III-1)	121
Highway Traffic Safety Grants Program and Performance Statement	122
Highway Traffic Safety Grants Detailed Justification by Program Activity	126
Highway Traffic Safety Grants Administrative Expenses Summary	142
Ten-Year Appropriation History	145
Section IV: Research, Development and Technology	
RD&T Request (Exhibit IV-1).....	151
Section V: Information Technology Expenditure	
FY 2020 Information Technology Funding Summary.....	153
Modal IT Justification Narrative	156

National Highway Traffic Safety Administration FY 2020 Budget Request

Deputy Administrator's Overview



The National Highway Traffic Safety Administration's (NHTSA) mission is to save lives, prevent injuries, and reduce economic costs due to road traffic crashes, through education, research, safety standards, and enforcement activity. NHTSA's Fiscal Year (FY) 2020 budget request of \$929.32 million supports the full spectrum of the agency's vehicle and behavioral safety activities. Advancements in automotive technology and vehicle innovation have created new possibilities and offer enormous safety potential for all road users in the United States.

However, the data remind us that three facts remain in traffic safety:

- Nearly half (47 percent) of all passenger vehicle occupants killed in crashes are unbelted;¹
- More than a fourth (29 percent) of highway crash fatalities involve an alcohol-impaired driver;² and
- According to the crash causation survey, the critical reason for the crash is attributed to the driver in the majority of the cases.³

In 2017, the Nation lost 37,133 people in traffic crashes.⁴ Additionally, preliminary data for 2018 reflects a flat trend in fatalities.

¹ 2017 Fatal Motor Vehicle Crashes: Overview DOT HS 812 603

² 2017 Fatal Motor Vehicle Crashes: Overview DOT HS 812 603

³ Singh, S. (2015, February). Critical reasons for crashes investigated in the National Motor Vehicle Crash Causation Survey. (Traffic Safety Facts Crash Stats. Report No. DOT HS 812 115). Washington, DC: National Highway Traffic Safety Administration.

⁴ 2017 Fatal Motor Vehicle Crashes: Overview DOT HS 812 603

NHTSA's FY 2020 budget request includes \$151.00 million for Vehicle Safety, \$155.30 million for Highway Safety Research and Development, and \$623.02 million for Highway Traffic Safety Grants. This budget request is critical to NHTSA's ongoing efforts to improve safety for all road users and enhance NHTSA's recall and enforcement efforts. NHTSA can never put a price on a life lost, but the agency estimates that motor vehicle crashes imposed \$836 billion in U.S. economic costs and societal harm in 2010 alone.⁵ This FY 2020 budget request addresses these costs.

The automotive industry is in the midst of a technological revolution that promises to improve safety and expand mobility for millions of Americans. NHTSA must ensure the testing and safe deployment of driver assistance technologies, and the FY 2020 budget request supports the agency's ability to do so. Furthermore, in the past few years, NHTSA undertook the largest vehicle recalls in the agency's history.

The FY 2020 budget request will allow NHTSA to address driver behaviors in ways that reduce injuries and fatalities on our roadways; continue its efforts in rulemaking, enforcement, and vehicle research; and develop and implement data-driven, workable, and self-sustaining highway safety programs. This budget request enables the agency to work effectively with its Federal, State, local, and private sector partners to achieve the greatest reduction possible in roadway crashes, injuries, and fatalities. These entities play vital roles in reducing injuries and fatalities on our Nation's roadways. Public and private sector partnerships work to enforce laws against drunk and distracted driving, provide technical assistance on graduated driver licensing and other safety issues, and support high visibility activities that save lives.

Priority Areas

Vehicle Safety

NHTSA's mission is ensuring the Nation's roadways are safe, and safe vehicles are a vital component of preventing crashes and the resulting injuries and fatalities. The FY 2020 budget requests \$151.00 million to continue advancing the Vehicle Safety efforts initiated over the past several years. The requested funding will allow NHTSA to build on existing research in advanced technologies, continue critical rulemaking efforts and build enforcement capacity to protect drivers around the country.

The FY 2020 budget request proposes a realignment of research activities that have historically been addressed under the Vehicle Safety account, but in fact address issues related to driver behavior that are appropriate under the Highway Safety Research & Development account. As automation advances, NHTSA's critical safety research must be responsive to the changing technological landscape. To a greater degree than ever before, the study of human machine interfaces and how human drivers react to advanced driver assistance systems is a critical component of ensuring vehicle safety. The proposed programmatic realignment acknowledges this reality. In FY 2020, \$7.00 million of research into the nexus between driver behavior previously funded out of the Vehicle Safety account is shifted to the Highway Safety Research and Development account. Specifically, \$2.00 million from Advanced Driver Assistance Systems (ADAS), \$3.00 million from Automated Driving Systems (ADS), and \$2.00 million to improve behavioral response rates to vehicle recalls, are proposed for realignment.

⁵ The Economic and Societal Impact of Motor Vehicle Crashes, 2010. National Highway Traffic Safety Administration.

In FY 2020, the amount requested for the ADS program will concentrate NHTSA's resources on the most promising safety-enhancement segment of automation, Society of Automotive Engineers (SAE) Levels 4 and 5. Reflecting the Secretary's priorities of safety and innovation, coupled with the rapidly evolving technological and regulatory landscape, the agency's request targets resources to support the safe testing, development, and deployment of ADS. NHTSA will undertake activities that support and maintain the United States' global leadership in the safe deployment of automated vehicles by empowering private sector innovation and focusing on collaboration, uniformity and interoperability to accelerate testing, validation and deployment of new life-saving technologies. Through ongoing collaboration with industry, NHTSA will address the barriers that challenge the rollout of higher-level ADS in the United States. These systems have the potential to address the high percentage of serious crashes where the critical reason for the crash is attributed to driver choice or error. Although successful deployment of these technologies promise a new level of safety, they also present a new set of challenges. To maximize safety and protect the American public, it is imperative that NHTSA keeps pace with rapid technological progress. The requested resources are essential to address new challenges while maintaining agency efforts that support NHTSA's safety mission.

In FY 2020, NHTSA has proposed renaming several existing research programs to reflect the agency's focus on innovation and priority of preparing for the future. In the budget, research efforts in safety systems and biomechanics are merged to form a new Crashworthiness research category. As vehicle design evolves, it is important to update crash test and simulation tools (e.g., crash test dummies) that can measure and address severe and frequent injuries that cannot be measured with current tools. Updating these tools through biomechanics research coupled with applied research to implement their use will be critical to laying the foundation for increasing vehicle occupant and vulnerable road user protection in the future.

The requested funding in NHTSA's Vehicle Safety Research program will also support ongoing research into complex safety-critical electronic control systems; vehicle cybersecurity; and new and emerging technologies that can help drivers avoid crashes. The Advanced Safety Technologies area focuses on light vehicle ADAS research (formerly crash avoidance research) and Heavy Vehicle Safety Technologies research. Examples of safety technologies addressed in this research area include: intersection safety assist, head on collision avoidance systems, blind spot intervention, and rear cross traffic alert. NHTSA's Vehicle Electronics and Emerging Technologies research program has been renamed "Vehicle Electronics and Cybersecurity" to better reflect the research intent. Although these changes appear cosmetic, they are indicative of NHTSA's focus on the future. As automated safety technologies have matured and been introduced to the market in new vehicles, so too have NHTSA's efforts to ensure the safety and reliability of these systems become more developed and robust. NHTSA continues to keep pace with advancements and remains committed to the safety of the American public, both in and around vehicles. These proposed changes reflect that commitment.

In addition to work on ADAS and ADS technologies, NHTSA's FY 2020 request also supports NHTSA's continued efforts on mandated regulations, such as enhancing motor coach and child passenger safety authorized by the Moving Ahead for Progress in the 21st Century Act (MAP-21) (P.L. 112-141), and work on alternative fuel vehicles. For rulemaking activities to establish average fuel economy standards, the Secretary of Transportation retains primary and final decision-making authority. In consultation with the Administrator of the Environmental Protection Agency and as delegated to NHTSA, the Department of Transportation prescribes or amends the Corporate Average

Fuel Economy (CAFE) program requirements under the Energy Conservation Policy Act of 1975 and the Energy Independence and Security Act of 2007 (EISA). These efforts include:

- Continuing to conduct analytical work to support light, medium and heavy-duty vehicle fuel economy rulemakings for future years; and
- Continuing development and maintenance of the CAFE Management Suite including hosting, software and contract labor costs.

The FY 2020 request also reflects the need for increased funding for NHTSA's enforcement program. With several high profile recalls in recent years, NHTSA is appropriately prioritizing the Office of Defects Investigation with the requested increases. Activities critical to the agency's ability to remove unsafe motor vehicle equipment from the nation's roadways include: ongoing operation and maintenance for Information Technology (IT) systems related to recall management; improved data-mining and analytical capabilities to screen for and investigate defects; and developing new assessment processes for driving automation systems. Enforcement programs will also continue ensuring industry compliance with motor vehicle safety standards, investigating safety-related defects in motor vehicles and motor vehicle equipment, and enforcing the Federal odometer law.

Highway Safety

The FY 2020 budget requests \$155.30 million for NHTSA's behavioral safety programs where the agency will prioritize educating roadway users and community leaders to adopt safe behaviors, in conjunction with strong laws and effective law enforcement.

NHTSA will continue to engage with law enforcement officers, prosecutors, and judges in agency behavioral programs. These partnerships are crucial to the success of the agency's efforts to better understand and influence driver behavior. NHTSA will continue to mobilize and enable a network of peer outreach Law Enforcement Liaisons (LELs) to advance its programs and provide ongoing technical assistance to law enforcement officials at the State and local level. NHTSA will also support the Data-Driven Approaches to Crime and Traffic Safety (DDACTS) program, and will continue its research initiatives in the areas of drug-impaired driving and driver fatigue.

Within the request, \$5 million in funding is prioritized in FY 2020 to continue NHTSA's Drug-Impaired Driving Initiative that began in FY 2018. Funding will support critical research needed to better understand how drug use and impairment impact driver safety. It is vitally important that we identify methods to detect drug use and driver impairment that identify the best way to measure the extent drugs affect driving behaviors. As the only Federal agency mandated to improve driver safety, NHTSA must be able to provide accurate and reliable data for planning, evaluation and research purposes. The initiative will also provide increased education and training for all segments of the criminal justice system; expand the national media campaign on drug-impaired driving; and develop new resources and technical assistance to strengthen State and community drug-impaired driving programs.

In the FY 2020 budget request, NHTSA is clarifying the shift in funding for human behavioral elements and adaptations, as well as improving responses to safety recalls from the Vehicle Safety account to the Highway Safety Research and Development account. Specific behavioral research activities traditionally funded under the Vehicle Safety program are allowable under the S. 403 Highway Safety Research and Development program. These activities will focus on Automated

Driving Systems (ADS) Human Factors research, Advanced Driver Assistance Systems (ADAS) research, and the Recall Management program administered by the Office of Defects Investigation.

The National Center for Statistics and Analysis (NCSA) will continue the collection and analysis of crash data to identify safety problems and trends, and assess costs, benefits, and effectiveness of programs and regulations. The data gathering and statistical analysis performed by NCSA is the backbone of NHTSA's behavioral initiatives. In FY 2020, NCSA will support upgrades to data science tools and a new crash causation study.

NCSA will maintain its core programs, including the Fatality Analysis Reporting System (FARS), and continue the rollout of the modernized Crash Report Sampling System (CRSS) and Crash Investigation Sampling System (CISS). Key ongoing initiatives include:

- providing FastFARS data to on a quarterly basis (in addition to the yearly reporting for the FARS System);
- updating annual projections of motor vehicle traffic fatalities;
- conducting on-site and remote crash investigations to identify unintended consequences of vehicle-related crashes or incidences;
- supporting potential recalls and other agency enforcement efforts; and
- improving data quality and analytical methods including electronic data transfer and new analytical tools to support and improve NHTSA data accessibility.

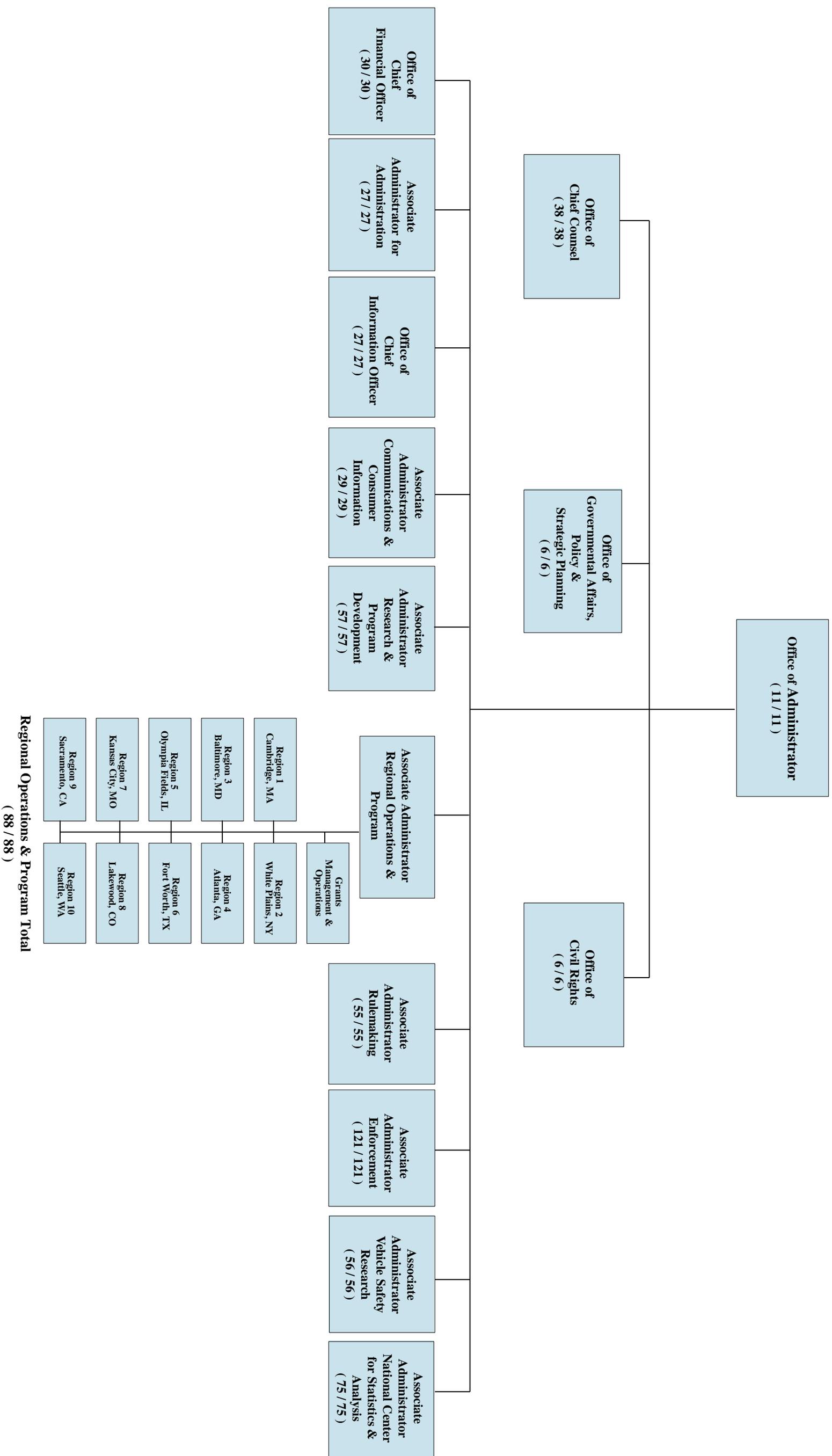
Highway Traffic Safety Grants

The FY 2020 budget requests \$623.02 million for Highway Traffic Safety Grants. Authorized under the Fixing America's Surface Transportation (FAST) Act (P.L. 114-94), the Highway Traffic Safety Grants account continues the grant programs established under Moving Ahead for Progress in the 21st Century Act (MAP-21) (P.L. 112-141) and as modified under the FAST Act. Through these programs, including the Section 402 State and Community Highway Safety Program and the Section 405 National Priority Safety Programs, and the Section 1906 Racial Profiling Data Collection Grants, the agency provides grants to States and local governments that are critical to the success of NHTSA's behavioral and data programs. Additionally, the High Visibility Enforcement program will continue to provide funding for NHTSA's annual *Click It or Ticket* and *Drive Sober or Get Pulled Over*, and *If You Feel Different, You Drive Different: Drive High, Get A DUI* media campaigns that have proven effective in reducing injuries and fatalities on our Nation's highways.

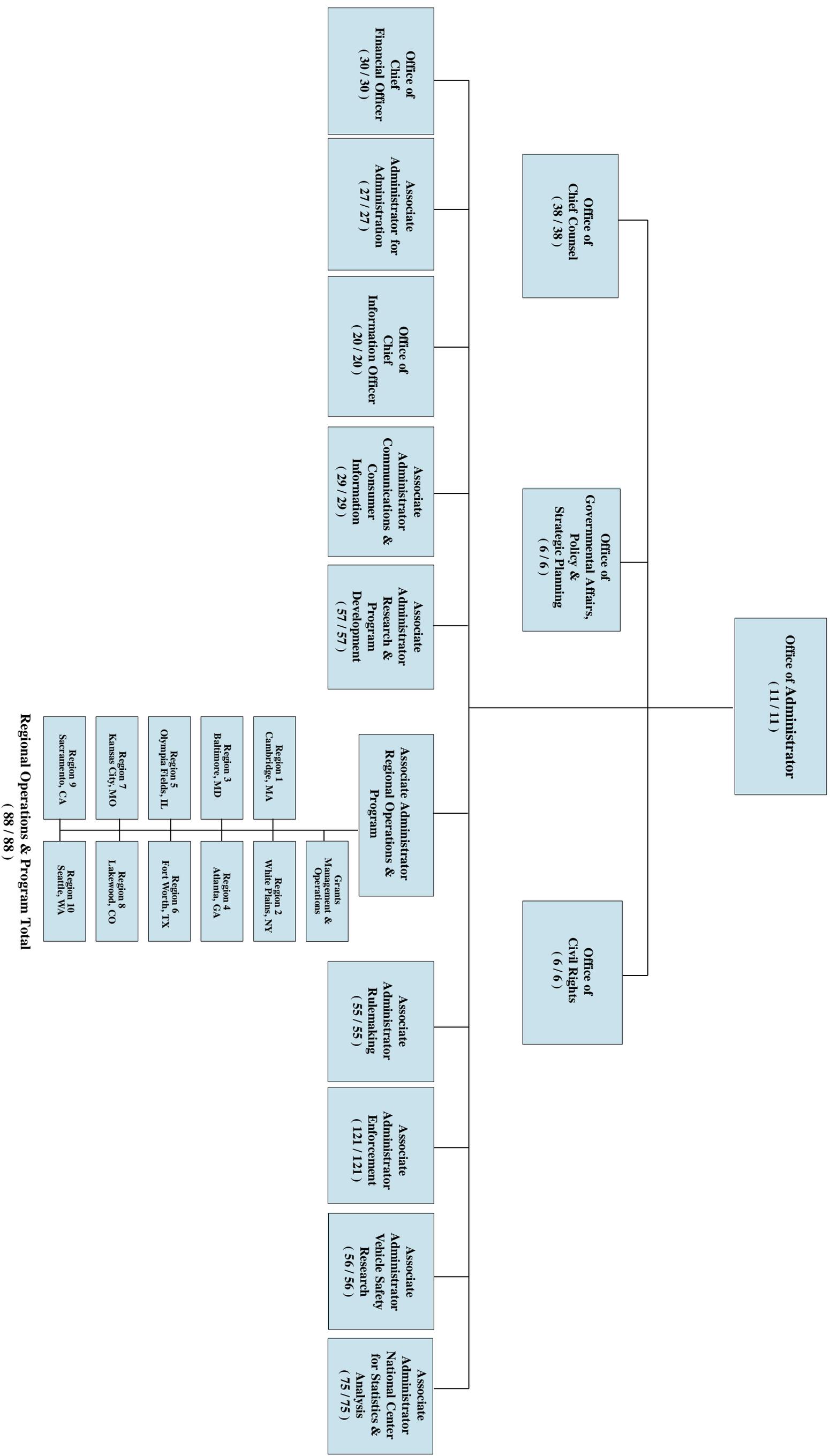
Conclusion

NHTSA's FY 2020 budget request of \$929.32 million will continue to support the agency's safety programs and activities, while ensuring that the agency keeps pace with rapid innovation in vehicle electronics, and full spectrum of driving automation systems. To maximize driver safety, critical research must be able to inform smart rulemaking while proactive enforcement efforts efficiently remove defective equipment from our highways. Efforts to understand driver behavior and assist drivers in making better choices, from remembering to wear seatbelts and avoid distractions, to choosing not to drive while impaired continue to be priorities as well. Funding at the requested level will allow NHTSA to continue helping all Americans drive, ride, and walk safely.

FY 2019 FTE Estimate National Highway Traffic Safety Administration (Total 626 FTE/626 FTP)



FY 2020 FTE Estimate National Highway Traffic Safety Administration (Total 619 FTE/619 FTP)



Regional Operations & Program Total
(88 / 88)

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EXHIBIT II - 1
FY 2020 COMPARATIVE STATEMENT OF NEW BUDGET AUTHORITY
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
(\$000)

<u>ACCOUNT NAME</u>	<u>FY 2018 ACTUALS</u>	<u>FY 2019 ANNUALIZED CR</u>	<u>FY 2019 ENACTED</u>	<u>FY 2020 REQUEST</u>
Operations and Research	\$ 349,575	\$ 352,675	\$ 356,100	\$ 306,300
Vehicle Safety Programs (GF)	189,075	189,075	190,000	151,000
Sec. 143 - Highway Safety Research & Development (GF) ¹	11,500	11,500	14,000	-
Highway Safety Research & Development (TF)	149,000	152,100	152,100	155,300
Highway Traffic Safety Grants (TF)	701,895	712,557	715,232	623,017
Highway Traffic Safety Grants (TF)	597,629	610,208	610,208	623,017
Transfer from FHWA ²	104,266	102,349	105,024	-
TOTAL	\$ 1,051,470	\$ 1,065,232	\$ 1,071,332	\$ 929,317

Note: Totals may not add due to rounding.

¹: Sec. 143 of the FY 2019 Consolidated Appropriations Act (P.L. 116-6) is formerly Sec. 144 of the FY 2018 Consolidated Appropriations Act (P.L. 115-141).

²: NHTSA anticipates transfers from FHWA in FY 2020. Amounts to be determined based on State penalty information.

EXHIBIT II-2
FY 2020 TOTAL BUDGETARY RESOURCES BY APPROPRIATION ACCOUNT
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

(\$000)

<u>ACCOUNT NAME</u>	(A)	(B)	(C)	(D)
	FY 2018 ACTUALS	FY 2019 ANNUALIZED CR	FY 2019 ENACTED	FY 2020 REQUEST
VEHICLE SAFETY PROGRAMS (GF)	\$ 189,075	\$ 189,075	\$ 190,000	\$ 151,000
Rulemaking	24,545	24,545	25,000	22,586
Enforcement	32,154	32,154	33,000	19,542
Research and Analysis	48,866	48,866	49,000	32,805
Administrative Expenses	83,510	83,510	83,000	76,067
SEC. 143 - HIGHWAY SAFETY RESEARCH AND DEVELOPMENT (GF)¹	\$ 11,500	\$ 11,500	\$ 14,000	\$ -
Railhead Media Campaign	6,500	6,500	7,000	-
Impaired Driving	5,000	5,000	7,000	-
HIGHWAY SAFETY RESEARCH AND DEVELOPMENT (TF)	\$ 149,000	\$ 149,000	\$ 152,100	\$ 155,300
Highway Safety Programs	57,374	57,374	56,631	63,121
Research and Analysis - NCSA	39,941	39,941	40,290	42,983
Administrative Expenses	51,685	51,685	55,179	49,196
TOTAL OPERATIONS AND RESEARCH	\$ 349,575	\$ 349,575	\$ 356,100	\$ 306,300
HIGHWAY TRAFFIC SAFETY GRANTS				-
Section 402 Formula Grants	261,200	261,200	270,400	279,800
Section 2009 High Visibility Enforcement Program	29,900	29,900	30,200	30,500
Section 405 National Priority Safety Programs	280,200	280,200	283,000	285,900
<i>Section 405 Occupant Protection Grants</i>	36,426	36,426	36,790	37,167
<i>Section 405 State Traffic Safety Information System Grants</i>	40,629	40,629	41,035	41,456
<i>Section 405 Impaired Driving Countermeasures Grants</i>	147,105	147,105	148,575	150,098
<i>Section 405 Distracted Driving Grants</i>	23,817	23,817	24,055	24,302
<i>Section 405 Motorcyclist Safety Grants</i>	4,203	4,203	4,245	4,289
<i>Section 405 State Graduated Driver Licensing Laws</i>	14,010	14,010	14,150	14,295
<i>Section 405 Non-Motorized Safety Pedestrian/Bikes</i>	14,010	14,010	14,150	14,295
Administrative Expenses	26,329	26,329	26,608	26,817
Transfer from FHWA ²	104,266	102,349	105,024	-
TOTAL HIGHWAY TRAFFIC SAFETY GRANTS (TF)	\$ 701,895	\$ 699,978	\$ 715,232	\$ 623,017
TOTAL	\$ 1,051,470	\$ 1,049,553	\$ 1,071,332	\$ 929,317

Note: Totals may not add due to rounding.

¹: Sec. 143 of the FY 2019 Consolidated Appropriations Act (P.L. 116-6) is formerly Sec. 144 of the FY 2018 Consolidated Appropriations Act (P.L. 115-141).

²: NHTSA anticipates transfers from FHWA in FY 2020. Amounts to be determined based on State penalty information.

EXHIBIT II-3
FY 2020 BUDGET REQUEST BY DOT STRATEGIC AND ORGANIZATIONAL GOALS
Appropriations, Obligation Limitation, and Exempt Obligations
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
(\$000)

<u>ACCOUNT NAME</u>	<u>Safety</u>	<u>Infrastructure</u>	<u>Innovation</u>	<u>Accountability</u>	<u>Total</u>
Vehicle Safety Programs (GF)	\$ 133,279	\$ -	\$ 13,153	\$ 4,567	\$ 151,000
Highway Safety Research & Development (TF)	\$ 151,002	\$ -	\$ -	\$ 4,298	\$ 155,300
Highway Traffic Safety Grants (TF)	\$ 623,017	\$ -	\$ -	\$ -	\$ 623,017
TOTAL	\$ 907,298	\$ -	\$ 13,153	\$ 8,866	\$ 929,317

EXHIBIT II-4
FY 2020 BUDGET AUTHORITY
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
(\$000)

	(A)	(B)	(C)	(D)	
<u>ACCOUNT NAME</u>	<u>Mandatory/</u> <u>Discretionary</u>	<u>FY 2018</u> <u>ACTUALS</u>	<u>FY 2019</u> <u>ANNUALIZED CR</u>	<u>FY 2019</u> <u>ENACTED</u>	<u>FY 2020</u> <u>REQUEST</u>
Vehicle Safety Programs (GF)	D	\$ 189,075	\$ 189,075	\$ 190,000	\$ 151,000
Vehicle Safety Programs (GF)		\$ 189,075	\$ 189,075	\$ 190,000	\$ 151,000
Sec. 143 - Highway Safety Research & Develop. (GF)¹	D	\$ 11,500	\$ 11,500	\$ 14,000	\$ -
Sec. 143 - Highway Safety Research & Develop. (GF)		\$ 11,500	\$ 11,500	\$ 14,000	\$ -
Highway Safety Research & Develop. (TF)	M	\$ 149,000	\$ 152,100	\$ 152,100	\$ 155,300
Highway Safety Research & Develop. (TF)		\$ 149,000	\$ 152,100	\$ 152,100	\$ 155,300
Highway Traffic Safety Grants (TF)	M	\$ 701,895	\$ 712,557	\$ 715,232	\$ 623,017
Highway Traffic Safety Grants (TF)		\$ 597,629	\$ 610,208	\$ 610,208	623,017
Transfer from FHWA ²		\$ 104,266	102,349	105,024	-
TOTAL:		\$ 1,051,470	\$ 1,065,232	\$ 1,071,332	\$ 929,317
[Mandatory]		850,895	864,657	867,332	778,317
[Discretionary]		200,575	200,575	204,000	151,000

Note: Totals may not add due to rounding.

¹ Sec. 143 of the FY 2019 Consolidated Appropriations Act (P.L. 116-6) is formerly Sec. 144 of the FY 2018 Consolidated Appropriations Act (P.L.115-141).

² NHTSA anticipates transfers from FHWA in FY 2020. Amounts to be determined based on State penalty information.

**EXHIBIT II-5
FY 2020 OUTLAYS
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
(\$000)**

	(A)	(B)	(C)	(D)
	FY 2018	FY 2019	FY 2019	FY 2020
M / D	ACTUALS	ANNUALIZED CR	ENACTED	REQUEST
Vehicle Safety Programs (GF)	D \$ 174,000	\$ 145,000	\$ 149,000	\$ 144,000
Highway Safety Research & Development (TF)	D \$ 152,000	\$ 154,000	\$ 155,000	\$ 161,000
Highway Traffic Safety Grants (TF)	D \$ 687,000	\$ 699,000	\$ 701,000	\$ 684,000
Next Generation 911 Implementation Grants (GF)	M \$ 1,000	\$ 13,000	\$ 13,000	\$ 41,000
TOTAL:	\$ 1,014,000	\$ 1,011,000	\$ 1,018,000	\$ 1,030,000
[Mandatory]	\$ 1,000	\$ 13,000	\$ 13,000	\$ 41,000
[Discretionary]	\$ 1,013,000	\$ 998,000	\$ 1,005,000	\$ 989,000

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Appropriations, Obligation Limitations, and Exempt Obligations
(S000)

SUMMARY TABLE

NHTSA SUMMARY	Baseline Changes										FY 2020 Baseline Estimate	Program Increases / Decreases	FY 2020 Request
	FY 2018 Actuals	FY 2019 Annualized CR	FY 2019 Enacted	Annualization of 2019 Pay Raises	Annualization of 2019 FTE	FY 2020 Pay Raise	One more Compensable Days (262)	GSA Rent	WCF Increase / Decrease	Inflation / Deflation			
PERSONNEL RESOURCES (FTE)													
Direct Program FTE	557	626	626	-	-	-	-	-	-	-	626	(7)	619
Reimbursable FTE	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Direct and Indirect FTE	557	626	626	-	-	-	-	-	-	-	626	(7)	619
FINANCIAL RESOURCES¹													
ADMINISTRATIVE EXPENSES													
Salaries and Benefits (11 & 12)*	91,270	102,912	104,425	499	-	-	-	-	-	-	104,924	(966)	103,958
Travel (21)	1,421	1,421	1,563	-	-	-	-	-	-	-	1,563	(200)	1,363
Transportation of Things (22)	70	70	70	-	-	-	-	-	-	-	70	-	70
GSA Rent (23)	8,622	8,622	8,880	-	-	-	-	266	-	-	9,147	-	9,147
Rent, Communications & Utilities (23)	4,557	4,557	4,557	-	-	-	-	-	-	-	4,557	-	4,557
Printing (24)	357	357	357	-	-	-	-	-	-	-	357	-	357
Other Services (25)	49,111	37,469	39,648	-	-	-	-	-	(809)	-	38,840	(11,576)	27,264
Supplies (26)	5,091	5,091	4,261	-	-	-	-	-	-	-	4,261	64	4,325
Equipment (31)	1,025	1,025	1,025	-	-	-	-	-	-	-	1,025	15	1,040
Subtotal, Administrative	161,524	161,524	164,787	499	-	-	-	266	(809)	-	164,743	(12,663)	152,080
VEHICLE SAFETY AND HIGHWAY SAFETY PROGRAMS													
	202,880	202,880	203,921	-	-	-	-	-	-	-	203,921	(22,884)	181,037
VS - Rulemaking	24,545	24,545	25,000	-	-	-	-	-	-	-	25,000	(2,414)	22,586
VS - Enforcement	32,154	32,154	33,000	-	-	-	-	-	-	-	33,000	(13,458)	19,542
VS - Research and Analysis	48,866	48,866	49,000	-	-	-	-	-	-	-	49,000	(16,195)	32,805
HS - Highway Safety Programs	57,374	57,374	56,631	-	-	-	-	-	-	-	56,631	6,489	63,121
HS - Research and Analysis	39,941	39,941	40,290	-	-	-	-	-	-	-	40,290	2,693	42,983
SEC 143²													
	11,500	11,500	14,000	-	-	-	-	-	-	-	14,000	(14,000)	-
Railhead Media Campaign	6,500	6,500	7,000	-	-	-	-	-	-	-	7,000	(7,000)	-
Impaired Driving	5,000	5,000	7,000	-	-	-	-	-	-	-	7,000	(7,000)	-
HIGHWAY TRAFFIC SAFETY GRANTS³													
	571,300	571,300	583,600	-	-	-	-	-	-	-	583,600	12,600	596,200
Sec. 402 Formula Grants	261,200	261,200	270,400	-	-	-	-	-	-	-	270,400	9,400	279,800
Sec. 2009 High Visibility Enforcement	29,900	29,900	30,200	-	-	-	-	-	-	-	30,200	300	30,500
Section 405 National Priority Safety Programs	280,200	280,200	283,000	-	-	-	-	-	-	-	283,000	2,900	285,900
<i>Section 405 Occupant Protection Grants</i>	36,426	36,426	36,790	-	-	-	-	-	-	-	36,790	377	37,167
<i>Section 405 State Traffic Safety Information System Grants</i>	40,629	40,629	41,035	-	-	-	-	-	-	-	41,035	421	41,456
<i>Section 405 Impaired Driving Countermeasures Grants</i>	147,105	147,105	148,575	-	-	-	-	-	-	-	148,575	1,523	150,098
<i>Section 405 Distracted Driving Grants</i>	23,817	23,817	24,055	-	-	-	-	-	-	-	24,055	247	24,302
<i>Section 405 Motorcyclist Safety Grants</i>	4,203	4,203	4,245	-	-	-	-	-	-	-	4,245	44	4,289
<i>Section 405 State Graduated Driver Licensing Laws</i>	14,010	14,010	14,150	-	-	-	-	-	-	-	14,150	145	14,295
<i>Section 405 Non-Motorized Safety Pedestrian/Bikes</i>	14,010	14,010	14,150	-	-	-	-	-	-	-	14,150	145	14,295
Subtotal, Programs	774,180	774,180	787,521	-	-	-	-	-	-	-	787,521	(10,284)	777,237
GRAND TOTAL³													
	947,204	947,204	966,308	499	-	-	-	266	(809)	-	966,264	(36,947)	929,317

Note: Totals may not add due to rounding.

¹. The Office of the Chief Information Officer (OCIO) will continue to provide NHTSA IT shared services and begin to consolidate NHTSA programmatic IT investments centrally in FY 2020. As part of the consolidation of IT functions under the WCF, NHTSA will transfer a total of 7 FTP supporting IT to the OCIO in FY 2020.

². Sec. 143 of the FY 2019 Consolidated Appropriations Act (P.L. 116-6) is formerly Sec. 144 of the FY 2018 Consolidated Appropriations Act (P.L. 115-141).

³. Total does not include State penalty transfers from FHWA. The FY 2018 transfer amount was \$104.3 million and the FY 2019 enacted amount is \$105 million. FY 2020 amounts are to be determined based on State penalty information.

EXHIBIT II - 6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
 Appropriations, Obligation Limitations, and Exempt Obligations
 (\$000)
 OPERATIONS AND RESEARCH
 VEHICLE SAFETY PROGRAMS

Program Category	FY 2018 Actuals	FY 2019 Annualized CR	FY 2019 Enacted	Annualization of 2019 Pay Raises	Annualization of 2019 FTE	FY 2020 Pay Raise	Baseline Changes		WCF Increase / Decrease	Inflation / Deflation	FY 2020 Baseline Estimate	Program Increases / Decreases	FY 2020 Request
							One more Compensable Days (262)	GSA Rent					
PERSONNEL RESOURCES (FTE)													
Direct Program FTE	322	363	363	-	-	-	-	-	-	-	363	(6)	357
Reimbursable FTE	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Direct and Indirect FTE	322	363	363	-	-	-	-	-	-	-	363	(6)	357
FINANCIAL RESOURCES¹													
ADMINISTRATIVE EXPENSES													
Salaries and Benefits (11 & 12)	52,996	59,862	60,704	290	-	-	-	-	-	-	60,994	(792)	60,202
Travel (21)	538	538	592	-	-	-	-	-	-	-	592	(100)	492
Transportation of Things (22)	70	70	70	-	-	-	-	-	-	-	70	-	70
GSA Rent (23)	1,958	1,958	2,216	-	-	-	-	(230)	-	-	1,987	-	1,987
Rent, Communications & Utilities (23)	3,487	3,487	3,487	-	-	-	-	-	-	-	3,487	-	3,487
Printing (24)	357	357	357	-	-	-	-	-	-	-	357	-	357
Other Services (25)	20,069	13,202	12,418	-	-	-	-	-	(107)	-	12,310	(6,041)	6,270
Supplies (26)	3,011	3,011	2,131	-	-	-	-	-	-	-	2,131	32	2,163
Equipment (31)	1,025	1,025	1,025	-	-	-	-	-	-	-	1,025	15	1,040
Subtotal, Administrative	83,510	83,510	83,000	290	-	-	-	(230)	(107)	-	82,953	(6,886)	76,067
PROGRAMS													
Rulemaking	24,545	24,545	25,000	-	-	-	-	-	-	-	25,000	(2,414)	22,586
Enforcement	32,154	32,154	33,000	-	-	-	-	-	-	-	33,000	(13,458)	19,542
Research and Analysis	48,866	48,866	49,000	-	-	-	-	-	-	-	49,000	(16,195)	32,805
Subtotal, Programs	105,565	105,565	107,000	-	-	-	-	-	-	-	107,000	(32,067)	74,933
TOTAL, VEHICLE SAFETY PROGRAMS	189,075	189,075	190,000	290	-	-	-	(230)	(107)	-	189,953	(38,953)	151,000

Note: Totals may not add due to rounding.

1. The Office of the Chief Information Officer (OCIO) will continue to provide NHTSA IT shared services and begin to consolidate NHTSA programmatic IT investments centrally in FY 2020. As part of the consolidation of IT functions under the WCF, NHTSA will transfer a total of 7 FTP supporting IT to the OCIO in FY 2020.

EXHIBIT II - 6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
 Appropriations, Obligation Limitations, and Exempt Obligations
 (\$000)
 OPERATIONS AND RESEARCH
 HIGHWAY SAFETY RESEARCH & DEVELOPMENT

Program Category	FY 2018 Actuals	FY 2019 Annualized CR	FY 2019 Enacted	Baseline Changes							FY 2020 Baseline Estimate	Program Increases / Decreases	FY 2020 Request
				Annualization of 2019 Pay Raises	Annualization of 2019 FTE	FY 2020 Pay Raise	One more Compensable Days (262)	GSA Rent	WCF Increase / Decrease	Inflation / Deflation			
PERSONNEL RESOURCES (FTE)													
Direct Program FTE	160	175	175	-	-	-	-	-	-	-	175	(1)	174
Reimbursable FTE	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Direct and Indirect FTE	160	175	175	-	-	-	-	-	-	-	175	(1)	174
FINANCIAL RESOURCES¹													
ADMINISTRATIVE EXPENSES													
Salaries and Benefits (11 & 12)	26,357	29,839	30,259	144	-	-	-	-	-	-	30,403	(172)	30,231
Travel (21)	506	506	557	-	-	-	-	-	-	-	557	(100)	457
Transportation of Things (22)	-	-	-	-	-	-	-	-	-	-	-	-	-
GSA Rent (23)	6,236	6,236	6,236	-	-	-	-	187	-	-	6,423	-	6,423
Rent, Communications & Utilities (23)	1,070	1,070	1,070	-	-	-	-	-	-	-	1,070	-	1,070
Printing (24)	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Services (25)	15,436	11,954	14,928	-	-	-	-	-	(701)	-	14,226	(5,372)	8,854
Supplies (26)	2,080	2,080	2,130	-	-	-	-	-	-	-	2,130	32	2,162
Equipment (31)	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, Administrative	51,685	51,685	55,179	144	-	-	-	187	(701)	-	54,809	(5,613)	49,196
PROGRAMS													
Highway Safety Programs	57,374	57,374	56,631	-	-	-	-	-	-	-	56,631	6,489	63,121
Research and Analysis - NCSA	39,941	39,941	40,290	-	-	-	-	-	-	-	40,290	2,693	42,983
Subtotal, Programs	97,315	97,315	96,921	-	-	-	-	-	-	-	96,921	9,182	106,104
TOTAL, HIGHWAY SAFETY RESEARCH & DEVELOPMENT	149,000	149,000	152,100	144	-	-	-	187	(701)	-	151,730	3,570	155,300

Note: Totals may not add due to rounding.

¹ The Office of the Chief Information Officer (OCIO) will continue to provide NHTSA IT shared services and begin to consolidate NHTSA programmatic IT investments centrally in FY 2020. As part of the consolidation of IT functions under the WCF, NHTSA will transfer a total of 7 FTP supporting IT to the OCIO in FY 2020.

EXHIBIT II - 6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
 Appropriations, Obligation Limitations, and Exempt Obligations
 (\$000)
 HIGHWAY TRAFFIC SAFETY GRANTS

Program Category	Baseline Changes											Program Increases / Decreases	FY 2020 Request
	FY 2018 Actuals	FY 2019 Annualized CR	FY 2019 Enacted	Annualization of 2019 Pay Raises	Annualization of 2019 FTE	FY 2020 Pay Raise	One more Compensable Days (262)	GSA Rent	WCF Increase /Decrease	Inflation / Deflation	FY 2020 Baseline Estimate		
PERSONNEL RESOURCES (FTE)													
Direct Program FTE	75	88	88	-	-	-	-	-	-	-	88	-	88
Reimbursable FTE	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Direct and Indirect FTE	75	88	88	-	-	-	-	-	-	-	88	-	88
FINANCIAL RESOURCES¹													
ADMINISTRATIVE EXPENSES													
Salaries and Benefits (11 & 12)*	11,917	13,212	13,463	65	-	-	-	-	-	-	13,527	(2)	13,525
Travel (21)	377	377	415	-	-	-	-	-	-	-	415	-	415
Transportation of Things (22)	-	-	-	-	-	-	-	-	-	-	-	-	-
GSA Rent (23)	428	428	428	-	-	-	-	309	-	-	737	-	737
Rent, Communications & Utilities (23)	-	-	-	-	-	-	-	-	-	-	-	-	-
Printing (24)	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Services (25)	13,607	12,312	12,303	-	-	-	-	-	-	-	12,303	(163)	12,140
Supplies (26)	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment (31)	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, Administrative	26,329	26,329	26,608	65	-	-	-	309	-	-	26,982	(165)	26,817
PROGRAMS													
Sec. 402 Formula Grants	261,200	261,200	270,400	-	-	-	-	-	-	-	270,400	9,400	279,800
Sec. 2009 High Visibility Enforcement	29,900	29,900	30,200	-	-	-	-	-	-	-	30,200	300	30,500
Section 405 National Priority Safety Programs	280,200	280,200	283,000	-	-	-	-	-	-	-	283,000	2,900	285,900
<i>Section 405 Occupant Protection Grants</i>	36,426	36,426	36,790	-	-	-	-	-	-	-	36,790	377	37,167
<i>Section 405 State Traffic Safety Information System Grants</i>	40,629	40,629	41,035	-	-	-	-	-	-	-	41,035	421	41,456
<i>Section 405 Impaired Driving Countermeasures Grants</i>	147,105	147,105	148,575	-	-	-	-	-	-	-	148,575	1,523	150,098
<i>Section 405 Distracted Driving Grants</i>	23,817	23,817	24,055	-	-	-	-	-	-	-	24,055	247	24,302
<i>Section 405 Motorcyclist Safety Grants</i>	4,203	4,203	4,245	-	-	-	-	-	-	-	4,245	44	4,289
<i>Section 405 State Graduated Driver Licensing Laws</i>	14,010	14,010	14,150	-	-	-	-	-	-	-	14,150	145	14,295
<i>Section 405 Non-Motorized Safety Pedestrian/Bikes</i>	14,010	14,010	14,150	-	-	-	-	-	-	-	14,150	145	14,295
Subtotal, Programs	571,300	571,300	583,600	-	-	-	-	-	-	-	583,600	12,600	596,200
TOTAL, HIGHWAY TRAFFIC SAFETY GRANTS²	597,629	597,629	610,208	65	-	-	-	309	-	-	610,582	12,435	623,017

Note: Totals may not add due to rounding.

1. Total does not include State penalty transfers from FHWA. The FY 2018 transfer amount was \$104.3 million and the FY 2019 enacted amount is \$105 million. FY 2020 amounts are to be determined based on State penalty information.

EXHIBIT II-7

**WORKING CAPITAL FUND
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
(S000)**

	FY 2018 ACTUALS	FY 2019 ANNUALIZED CR	FY 2019 ENACTED	FY 2020 REQUEST
DIRECT:	\$ 13,603	\$ 13,768	\$ 13,768	\$ 29,343
SUBTOTAL	13,603	13,768	13,768	29,343
TOTAL	\$ 13,603	\$ 13,768	\$ 13,768	\$ 29,343

Note: The Office of the Chief Information Officer (OCIO) will continue to provide NHTSA IT shared services and begin to consolidate NHTSA programmatic IT investments centrally in FY 2020. As part of the consolidation of IT functions under the WCF, NHTSA will transfer a total of 7 FTP supporting IT to the OCIO in FY 2020.

EXHIBIT II-8

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
PERSONNEL RESOURCE - SUMMARY
TOTAL FULL-TIME EQUIVALENTS**

	FY 2018 ACTUALS	FY 2019 ANNUALIZED CR	FY 2019 ENACTED	FY 2020 REQUEST
<u>DIRECT FUNDED BY APPROPRIATION</u>				
<u>Operations and Research</u>	482	538	538	531
Vehicle Safety Programs (GF)	322	363	363	357
Highway Safety Research and Development (TF)	160	175	175	174
Highway Traffic Safety Grants (TF)	75	88	88	88
SUBTOTAL, DIRECT FUNDED	557	626	626	619
TOTAL FTEs	557	626	626	619

EXHIBIT II-9

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RESOURCE SUMMARY - STAFFING
FULL-TIME PERMANENT POSITIONS**

	FY 2018 ACTUALS	FY 2019 ANNUALIZED CR	FY 2019 ENACTED	FY 2020 REQUEST
<u>DIRECT FUNDED BY APPROPRIATION</u>				
<u>Operations and Research</u>	538	538	538	531
Vehicle Safety Programs (GF)	363	363	363	357
Highway Safety Research and Development (TF)	175	175	175	174
Highway Traffic Safety Grants (TF)	88	88	88	88
SUBTOTAL, DIRECT FUNDED	626	626	626	619
TOTAL POSITIONS	626	626	626	619

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH

For expenses necessary to discharge the functions of the Secretary, with respect to traffic and highway safety authorized under chapter 301 and part C of subtitle VI of title 49, United States Code, \$151,000,000, of which \$40,000,000 shall remain available through September 30, 2021.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

For payment of obligations incurred in carrying out the provisions of 23 U.S.C. 403, including *behavioral research on Automated Driving Systems and Advanced Driver Assistance Systems and improving consumer responses to safety recalls* section 4011 of the Fixing America's Surface Transportation (FAST) Act (*Public Law 114-94*), , and chapter 303 of title 49, United States Code, \$155,300,000, to be derived from the Highway Trust Fund (other than the Mass Transit Account) and to remain available until expended: *Provided*, That none of the funds in this Act shall be available for the planning or execution of programs the total obligations for which, in fiscal year 2020, are in excess of \$155,300,000, of which \$149,800,000 shall be for programs authorized under 23 U.S.C. 403, *including behavioral research on Automated Driving Systems and Advanced Driver Assistance Systems and improving consumer responses to safety recalls* and *section 4011 of the FAST Act*, and \$5,500,000 shall be for the National Driver Register authorized under chapter 303 of title 49, United States Code: *Provided further*, That within the \$155,300,000 obligation limitation for operations and research, \$20,000,000 shall remain available until September 30, 2021, and shall be in addition to the amount of any limitation imposed on obligations for future years: *Provided further*, *That amounts for behavioral research on Automated Driving Systems and Advanced Driver Assistance Systems and improving consumer responses to safety recalls are in addition to any other funds provided for those purposes for fiscal year 2020 in this Act.*

Explanation of Proposed Changes

Operations and Research (Highway Trust Fund): The new language sets aside \$7,000,000 for behavioral research on Automated Driving Systems, Advanced Driver Assistance Systems and improving responses to safety recalls. It is necessary to expressly list these activities to clarify that this appropriation is available as a funding source because the activities relate to human behavior. The total authorization remains consistent with the FAST Act authorization level. Absent this set-aside, the \$7,000,000 would have been for other activities under 23 U.S.C. 403 and the listed activities would be funded only under the general fund operations and research appropriation.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
HIGHWAY TRAFFIC SAFETY GRANTS
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

For payment of obligations incurred in carrying out provisions of 23 U.S.C. 402, 404, and 405, and section 4001(a)(6) of the Fixing America's Surface Transportation (FAST) Act, to remain available until expended, \$623,017,000, to be derived from the Highway Trust Fund (other than the Mass Transit Account): *Provided*, That none of the funds in this Act shall be available for the planning or execution of programs the total obligations for which, in fiscal year 2020, are in excess of \$623,017,000 for programs authorized under 23 U.S.C. 402, 404, and 405, and section 4001(a)(6) of the Fixing America's Surface Transportation Act, of which \$279,800,000 shall be for "Highway Safety Programs" under 23 U.S.C. 402; \$285,900,000 shall be for "National Priority Safety Programs" under 23 U.S.C. 405; \$30,500,000 shall be for "High Visibility Enforcement Program" under 23 U.S.C. 404; \$26,817,000 shall be for "Administrative Expenses" under section 4001(a)(6) of the Fixing America's Surface Transportation Act: *Provided further*, That none of these funds shall be used for construction, rehabilitation, or remodeling costs, or for office furnishings and fixtures for State, local or private buildings or structures: *Provided further*, That not to exceed \$500,000 of the funds made available for "National Priority Safety Programs" under 23 U.S.C. 405 for "Impaired Driving Countermeasures" (as described in subsection (d) of that section) shall be available for technical assistance to the States: *Provided further*, That with respect to the "Transfers" provision under 23 U.S.C. 405(a)(8), any amounts transferred to increase the amounts made available under section 402 shall include the obligation authority for such amounts: *Provided further*, That the Administrator shall notify the House and Senate Committees on Appropriations of any exercise of the authority granted under the previous proviso or under 23 U.S.C. 405(a)(8) within five days.

ADMINISTRATIVE PROVISIONS—NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

Sec. 140. An additional \$130,000 shall be made available to the National Highway Traffic Safety Administration, out of the amount limited for section 402 of title 23, United States Code, to pay for travel and related expenses for State management reviews and to pay for core competency development training and related expenses for highway safety staff.

Sec. 141. The limitations on obligations for the programs of the National Highway Traffic Safety Administration set in this Act shall not apply to obligations for which obligation authority was made available in previous public laws but only to the extent that the obligation authority has not lapsed or been used.

SEC. 142. None of the funds made available by this Act may be used to mandate global positioning system (GPS) tracking in private passenger motor vehicles without providing full and appropriate consideration of privacy concerns under 5 U.S.C. chapter 5, subchapter II.

[SEC. 143. In addition to the amounts made available under the heading, “Operations and Research (Liquidation of Contract Authorization) (Limitation on Obligations) (Highway Trust Fund)” for carrying out the provisions of section 403 of title 23, United States Code, \$14,000,000, to remain available until September 30, 12 2020, shall be made available to the National Highway Traffic Safety Administration from the general fund, of which not to exceed \$7,000,000 shall be available to provide funding for grants, pilot program activities, and innovative solutions to reduce alcohol-impaired-driving fatalities and other causes of the recent increase in highway fatalities from impaired driving in collaboration with eligible entities under section 403 of title 23, United States Code, and not to exceed \$7,000,000 shall be available to continue a high visibility enforcement paid-media campaign regarding highway-rail grade crossing safety in collaboration with the Federal Railroad Administration.]

Explanation of Proposed Changes

Section 142: This provision substantially limits NHTSA’s ability to obtain voluntary information on drug and alcohol use. The data is used to develop effective countermeasures. If allowed to conduct the voluntary National Roadside Survey, drivers can choose not to participate at any stage of the survey. If allowed to go forward with the Survey, NHTSA would comply with the requirements of the Paperwork Reduction Act to get it approved before conducting it. The elimination of this provision allows NHTSA to provide relevant and reliable data to our partners in the States, law enforcement agencies, as well as other governmental entities.

Section 143: NHTSA is not requesting General Fund Budget Authority to continue funding Sec. 143 (impaired-driving activities and a rail grade crossing media campaign) in FY 2020.

EXHIBIT III-1

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH
VEHICLE SAFETY PROGRAMS
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)**

	FY 2018 ACTUALS	FY 2019 ANNUALIZED CR	FY 2019 ENACTED	FY 2020 REQUEST
Rulemaking	\$ 24,545	\$ 24,545	\$ 25,000	\$ 22,586
Enforcement	32,154	32,154	33,000	19,542
Research and Analysis	48,866	48,866	49,000	32,805
Administrative Expenses	83,510	83,510	83,000	76,067
TOTAL, VEHICLE SAFETY (GF)	\$ 189,075	\$ 189,075	\$ 190,000	\$ 151,000
<u>FTEs:</u>				
Direct Funded	322	363	363	357

Note: Totals may not add due to rounding.

**VEHICLE SAFETY
OPERATIONS AND RESEARCH – GENERAL FUND (GF)**

Program and Performance Statement

The FY 2020 budget request includes \$151.00 million for Vehicle Safety activities to reduce roadway fatalities, prevent injuries, improve fuel economy, and significantly reduce the societal costs related to unsafe motor vehicles and motor vehicle equipment. These objectives are met through:

- The issuance and enforcement of Federal Motor Vehicle Safety Standards (FMVSS)
- Dissemination of consumer information;
- Research involving electronics, Advanced Driver Assistance Systems (ADAS – crash avoidance and mitigation technologies), crashworthiness, and alternative fuel vehicle safety;
- Advanced testing of emergent technologies, including Automated Driving Systems (ADS) – Society of Automotive Engineers (SAE) International Automation Levels 3-5; conditional, high, and full automation, respectively); and
- Development, issuance, and enforcement of U.S. fuel economy and efficiency standards.

**FY 2020 – Vehicle Safety Budget Request
\$151,000,000**

(\$000)			
Program	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Rulemaking	\$24,545	\$25,000	\$22,586
Enforcement	\$32,154	\$33,000	\$19,542
Research and Analysis	\$48,866	\$49,000	\$32,805
Vehicle Safety Administrative Expenses	\$83,510	\$83,000	\$76,067
Account Total	\$189,075	\$190,000	\$151,000

Vehicle Safety Research and Analysis
\$32,805,000

The Vehicle Safety Research and Analysis programs support the Department's efforts to improve motor vehicle and motor vehicle equipment safety by strengthening agency knowledge and expertise, developing test procedures to assess the safety impact and risks of new technologies, and developing countermeasures to vehicle safety issues. Major research areas include automation; advanced vehicle safety technologies; and crash survivability.

Requested funding will support research into vehicle-based options to address distracted driving and alcohol involvement in crashes; measure the reliability and security of complex safety-critical electronic control systems; assess the cybersecurity of vehicles; and assess new and emerging technologies that can help drivers avoid crashes. Requested funding will support the development and demonstrated application of new physical and virtual test tools for assessing the crashworthiness of future vehicles including those with non-standard seating arrangements.

The request will also support NHTSA's efforts to develop enhanced computer modeling tools and expertise to identify changes quickly and efficiently in the vehicle fleet that could have safety ramifications, particularly in areas related to alternative fuel vehicles and ADSs. It will also support advanced battery control modeling and analysis; assessment of crash notification technology and emergency response; and the agency's other cross-cutting initiatives. NHTSA will also undertake further activities to enhance and expand testing capability of advanced technologies at the Vehicle Research and Test Center (VRTC) in East Liberty, Ohio. The FY 2020 budget request proposes \$7.00 million for Automated Driving Systems (ADS) and \$6.30 million for Advanced Driver Assistance Systems (ADAS) from the Vehicle Safety account, and \$3.00 million for ADS and \$2 million for ADAS from the Highway Safety Research and Development account to advance NHTSA's research into enabling the safe development and deployment of Levels 3 - 5 Automated Driving Systems (ADS), particularly vehicles that are envisioned to exclude manual driving controls.

NHTSA's crash data collection efforts administered by the agency's National Center for Statistics and Analysis' (NCSA) are funded from both Vehicle Safety and Highway Safety Research and Development accounts. As such, the FY 2020 request includes \$500 thousand in Vehicle Safety funding to complement the \$37.86 million provided in Highway Safety Research and Development funding for crash data collection. This funding will allow NHTSA to continue its data modernization project and support NCSA's overall crash data collection efforts. Quality data acquired through this program is critical to NHTSA programs and policies, by providing the empirical information necessary for saving lives and reducing economic costs.

Rulemaking Programs
\$22,586,000

In FY 2020, NHTSA's Rulemaking programs will advance the Department's goals for safety, accountability, and innovation and deregulatory efforts. The proposed funding will allow NHTSA to continue its efforts in providing consumers with safety information in the key safety areas of crashworthiness and crash avoidance, and dissemination of the 5-star Safety Rating as part of the New Car Assessment Program (NCAP). The requested funding will also enable NHTSA to test and rate a substantial percentage of all new cars and light-trucks sold nationally. The Rulemaking program will continue its work on automotive fuel economy and efficiency standards. The request promotes the adoption of United States safety standards internationally. International collaboration helps leverage the agency's resources through the shared exchange of research and data.

Enforcement Programs
\$19,542,000

The activities in NHTSA's Enforcement programs support the Department's emphasis on safety. This is accomplished by investigating safety-related defects in motor vehicles and motor vehicle equipment; ensuring that manufacturers conduct recalls to remedy unsafe motor vehicles and equipment from the highways; ensuring industry compliance with motor vehicle safety standards; enforcing the Federal odometer law; and encouraging enforcement of State odometer laws. The Enforcement program is working to enhance NHTSA's current system for notification of open recalls to include text messaging, as well as promoting greater awareness of recalls and the defect identification process through use of outreach efforts that have been effective in the Takata airbag inflator recall campaign. Efforts continue to modernize the Enforcement Office's Artemis data repository and system of records. When completed, this new cloud-based system will allow for more effective and efficient data management and analysis for all users helping process recalls faster, as well as speeding pre-investigative activities to spot potential defects.

Requested funding will also support enforcement initiatives to enhance safety through oversight of new entrant manufacturers; improve the collection, storage, analysis, and dissemination of defect and compliance data; and continue Corporate Average Fuel Economy (CAFE)-related enforcement and compliance activities, including enforcement for standards that will be established through the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for model year 2021-2026 vehicles, and related civil penalty collections. Funding will enable Enforcement programs to address concerns with the effectiveness, reliability, interoperability, privacy and security of electronic control systems being introduced into the vehicle fleet with increasing frequency. Finally, the requested funding level will enable the Office of Defects Investigation (ODI) to implement enhanced pre-investigative and investigative processes necessary in an era of advanced vehicle technology innovation. The funding will help identify potential safety defects and ensure remedies are effective, implemented promptly, and are properly informed to the public.

Detailed Justification for Vehicle Safety Research and Analysis Programs

FY 2020 – RESEARCH AND ANALYSIS - SUB-PROGRAM BUDGET REQUEST

(\$000)			
Research and Analysis Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Crashworthiness	\$18,079	\$13,110	\$13,447
<i>Safety Systems</i>	\$8,131	\$4,874	\$5,210
<i>Biomechanics</i>	\$9,948	\$8,237	\$8,237
Advanced Safety Technologies	\$13,050	\$9,216	\$7,216
<i>Heavy Vehicles Safety Technologies</i>	\$2,138	\$915	\$915
<i>Advanced Driver Assistance Systems(ADAS)¹</i>	\$10,912	\$8,301	\$6,301
Alternative Fuels Vehicle Safety	\$1,738	\$674	\$674
Vehicle Electronics and Cybersecurity	\$15,000	\$15,000	\$3,469
Automated Driving Systems (ADS)²	\$0	\$10,000	\$7,000
Vehicle Test Center - Ohio	\$500	\$500	\$500
Crash Data Collection	\$500	\$500	\$500
Research and Analysis Total	\$48,866	\$49,000	\$32,805

¹ The Vehicle Safety account provides \$6.30 million in funding for ADAS program activities. Additionally, the Highway Safety Research and Development account provides \$2 million in funding for ADAS behavioral research activities.

² The Vehicle Safety account provides \$7.00 million in funding for ADS program activities. Additionally, the Highway Safety Research and Development account provides \$3 million in funding for ADS behavioral research activities.

In FY 2020, NHTSA requests \$32.81 million for Vehicle Safety Research and Analysis activities. The request will allow NHTSA to build upon the critical research accomplished in FY 2018 and planned for FY 2019 that is necessary to support agency decisions. These activities aim to enhance the safety and security of automotive electronic control systems while supporting the safe adoption of vehicle automation technologies. This funding level will enable the Vehicle Safety Research and Analysis programs to keep pace with modern technologies and address any potential safety issues.

The requested funding also allows NHTSA to continue research projects for emerging safety areas associated with safety systems and alternative fuel vehicles. The research projects also address new technologies in the areas of crash avoidance and heavy vehicles, and improve NHTSA’s ability to evaluate vehicles at its facilities for research purposes and for potential defects. By continuing to support current projects and initiate new projects, the agency will be able to accelerate the safe deployment of advanced technologies, and to support agency decisions in several areas including heavy vehicle crash avoidance systems, new occupant protection standards for adults and children, and the completion of several Congressional mandates such as those included in the FAST Act legislation (i.e., requiring advanced crash avoidance technologies information on the Monroney label, tire and TPMS regulations, etc.).

VEHICLE SAFETY RESEARCH AND ANALYSIS
Crashworthiness⁶

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Crashworthiness	\$13,110	\$13,447
<i>Safety Systems</i>	<i>\$4,874</i>	<i>\$5,210</i>
<i>Biomechanics</i>	<i>\$8,237</i>	<i>\$8,237</i>

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

Crashworthiness research focuses on vehicle safety countermeasures to reduce the number of fatal and serious injuries that occur from motor vehicle crashes in the United States each year. This research program is responsible for developing and upgrading test procedures for the evaluation of motor vehicle safety, and developing the test devices (e.g. crash test dummies and human body computer models), and appropriate injury metrics. Crashworthiness research encompasses new and improved vehicle design, biomechanics and injury causation, field data collection and analysis of serious injury cases, safety countermeasures, and vehicle equipment to enhance occupant safety.

In FY 2020, NHTSA requests \$13.45 million for Crashworthiness research to support the Biomechanics and Safety Systems programs. The Crashworthiness research program conducts real-world data collection and analysis together with experimental- and computer modelling-based research. The program directly supports the Department’s safety strategic goal of reducing transportation-related fatalities and serious injuries across the transportation system. Biomechanics will fund research to develop tools (crash test dummies, mathematical models) and injury metrics that can be applied towards the assessment of advanced vehicle safety countermeasures. Safety Systems will support research to evaluate new test dummies and injury metrics in current and future crash conditions, develop or revise test procedures, and assess the effectiveness of occupant protections systems.

Specifically, the funding requested in FY 2020 will allow NHTSA to:

- Complete the development of the test tools for consumer rating programs and general safety testing, as well as industry utilization, along with their associated technical documentation for three advanced crash test dummies: (1) small adult female frontal dummy, known as the Test Device for Human Occupant Restraint (THOR) 5th percentile; (2) small adult female side impact dummy, known as the Worldwide harmonized Side Impact Dummy (WorldSID) 5th percentile; (3) Large Omni-directional Child (LODC) 10-year-old dummy;

⁶ Crashworthiness is comprised of the “Safety Systems” and “Biomechanics” activity areas, which were listed as separate program activities in prior year budget justifications.

- Complete side impact crash tests with the WorldSID 5th percentile to evaluate its sensitivity to changes in crash type and restraint configurations;
- Support a collaborative government/industry effort focused on the development, evaluation, and application of human body models for use by the agency and public in promoting the development of advanced countermeasures for reducing injuries/fatalities resulting from motor vehicle crashes. This includes the continuous improvement and demonstrated application of child, small female, and average/large male models;
- Conduct research to develop head/brain and thorax injury criteria specific to the protection of older occupants;
- Complete rear seat restraint optimization studies using the LODC 10-year-old child dummy, THOR 5th percentile female and human body models, as well as new injury metrics (e.g. older occupants);
- Collect real-world motor vehicle crash occupant-based injury data, known as the Crash Injury Research and Engineering Network (CIREN). CIREN compliments data collection efforts by NHTSA's National Center for Statistics and Analysis (NCSA) by extending common data collection protocols to include an emphasis on medical data collection and expert engineering analysis of the crash, vehicle, and occupant factors associated with serious injuries. The current data collection efforts include an emphasis on collecting serious injury cases for pedestrians and occupants involved in crashes that will be of increasing relevance for the potential alternative seating arrangements that may be present in vehicles with Automated Driving Systems (Society of Automotive Engineers (SAE) automation levels 4-5);
- Leverage private/public partnerships to understand the safety implications for occupants of evolving light-weight, fuel efficient vehicle designs; and
- Develop a dynamic test procedure to assess seat back strength and headrest performance in rear impact crashes.

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

The Crashworthiness program supports the Department's Strategic Goals of Safety and Innovation using several strategies to include: data, identifying risks, collaboration, leadership, performance, coordination, research, and technology integration. The outcomes provide information to support agency decisions on actions aimed at reducing the number of fatal and serious injuries to occupants in motor vehicles that occur in the United States each year from crashes. The knowledge, tools, test procedures, and injury metrics resulting from this research program can be used by industry and the vehicle safety community to provide maximum safety with minimal or no cost to the American public.

The Safety Systems research program is responsible for evaluating new crash safety concerns and for developing safety concepts, test procedures, and performance measures. Safety Systems research examines existing designs, new and improved vehicle designs, safety countermeasures, and equipment to enhance safety for all occupants in the event of a crash. The Biomechanics research program at NHTSA has long maintained a leadership role in the development of test tools (e.g. crash test dummies) and injury metrics used to ensure optimal crashworthiness of vehicles.

In FY 2020, NHTSA will continue to collaborate with industry and academia in supporting research that benefits the public through promoting the development of advanced tools and knowledge for applications aiming to reduce injuries/fatalities resulting from motor vehicle crashes. Below are some expected public benefits that will result from the FY 2020 funding request:

- Public release of CIREN dataset of detailed injury and medical data associated with seriously injured motor vehicle crash occupants. Roughly 200 expert-reviewed cases are added to the public dataset each fiscal year and provide an early insight into the types and causes of injuries that continue to occur in new vehicles as a result of motor vehicle crashes.
- Initial release of CIREN pedestrian injury data to provide the public with improved knowledge regarding the patterns and causes of injuries to pedestrians struck by motor vehicles.
- Public release of technical documentation for the advanced THOR, WorldSID 5th percentile female crash test dummies, and the advanced 10-year-old LODC crash test dummy that can be applied toward agency and public/industry crash safety programs aiming to reduce the number of injuries and fatalities on U.S. roadways.
- Development, evaluation, demonstrated application, and public release of mathematical models such as detailed human body models, a brain injury model, and dummy-based models such as the THOR 5th percentile female.
- Public release of results from an optimization study to support designs of improved rear seat restraints, particularly for vulnerable populations such as the elderly and children in booster seats.
- NHTSA's Biomechanics and Crash Test Databases, which include over 25,000 NHTSA-funded or acquired tests, is used by the agency, academia, and industry for injury assessment and criteria.

VEHICLE SAFETY RESEARCH AND ANALYSIS
Advanced Safety Technologies⁷

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Advanced Safety Technologies	\$9,216	\$7,216
<i>Heavy Vehicle Safety Technologies</i>	<i>\$915</i>	<i>\$915</i>
<i>Advanced Driver Assistance Systems (ADAS)</i>	<i>\$8,301</i>	<i>\$6,301</i>

Note: The budget request proposes to fund \$6.30 million for the Advanced Driver Assistance Systems program within the Vehicle Safety account, and \$2.00 million in funding is provided for under the Highway Safety Research and Development account.

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

Advanced Safety Technologies research focuses on safety countermeasures for passenger vehicles, and large trucks and buses that assist drivers in preventing crashes. Roadway safety continues to be a major public health and economic challenge in the United States. There were 37,133 people killed in crashes on U.S. roadways during 2017, a decrease of 1.8% compared to 2016.⁸ Furthermore, traffic fatalities increased in almost all segments of the population—passenger vehicle occupants, occupants of large trucks, pedestrians, pedal-cyclists, motorcyclists, etc. There is a promising note in the crash statistics that most of these crashes are preventable; and advanced safety technologies have the potential to provide an additional safety margin that can help drivers avoid or significantly mitigate crash severity.

While Automated Driving Systems⁹ (ADS) are being developed, almost all current crashes that occur on our roadways still involve human drivers who drive themselves. An increasing portion of these vehicles feature advanced safety technologies that assist the drivers to avoid crashes when they find themselves in difficult and risky circumstances. This program area focuses on the safe development, evaluation, and deployment of systems that encompass Advanced Driver Assistance Systems (ADAS). These include technologies that respond to specific crash imminent situations (i.e. Society of Automotive Engineers (SAE) J3016 Level 0), as well as driving automation systems that enable partial driving automation but still require full driver engagement (SAE automation Levels 1 & 2).

⁷ Advanced Safety Technologies is comprised of the “Heavy Vehicle Safety Technologies” and “Advanced Driver Assistance Systems” activity areas, which were listed as separate program activities – “Heavy Vehicles” and “Crash Avoidance” - in prior year budget justifications.

⁸ 2017 Fatal Motor Vehicle Crashes: Overview DOT HS 812 603

⁹ There have been significant advancements in the development of Automated Driving Systems (ADS) in the recent years, which is a major area of emphasis for NHTSA and covered under the ADS research program area.

The automotive industry has made significant progress in the development of advanced technologies intended to prevent and/or mitigate roadway crashes. Today's crash avoidance systems rely on sensors such as radar, Light Detection and Ranging (LIDAR), camera, ultrasonic, and others to detect potential collisions with other vehicles, pedestrians, or other objects and then warns the driver to take appropriate action. More advanced systems may also automatically apply brakes or provide steering inputs to avoid or mitigate the crash if the driver's actions (in response to an alert) are delayed or insufficient.

The effectiveness of advanced safety technologies often relies on the way the (human) driver interfaces with the system—ranging from simply whether (or not) they engage the system (i.e., controls), to how warnings are conveyed (i.e., driver-vehicle interface). Similarly, more advanced driving automation systems (that are anything short of “fully automated”) also rely on the driver's ability to properly understand the capabilities, constraints, and control settings of driving automation—including the circumstances and way the human driver takes-over or “partners” with the systems to complete the driving task.

This program is focused on safety systems and innovations that directly map to crashes involving light and heavy vehicles. Recent examples include new braking technologies (automatic emergency braking to reduce rear end collisions), as well as important contributions for stability control systems estimated to prevent a significant number of both light and heavy vehicle crashes. Continued focus on new emerging innovative safety systems that show potential to address real world crashes, vehicle safety performance with respect to frequent and severe crashes may be significantly improved. New emerging innovative technologies in this area include active safety systems such as: cross traffic alert systems that have potential in addressing some types of intersection crashes; blind spot intervention systems that automatically apply steering or braking to assist drivers in avoiding lane change/merge collisions; opposite direction (head on) collision avoidance systems; and Traffic Jam Assist (TJA) that provides steering and speed control assistance to a driver during low speed, stop-and-go driving circumstances. Additional technology innovations will also be part of this program and are envisioned to include new displays used as part of in-vehicle systems that interact with drivers via human-machine interfaces (HMIs), as well as technologies for side and rear vision enhancement for drivers (e.g. camera-based technologies).

In FY 2020, NHTSA requests \$7.22 million for Advanced Safety Technologies research to support the ADAS and Heavy Vehicle Safety Technologies programs. For the ADAS program, passenger vehicles and light trucks, will be the primary focus. In the Heavy Vehicle Safety Technologies program, the focus will be on tractor-trailer vehicles, single unit trucks, and buses.

The requested funding will support the safe testing and deployment of innovative safety systems and technologies in the following areas:

Reducing Unnecessary Barriers for Emerging ADAS

As automotive Original Equipment Manufacturers (OEMs) and industry suppliers continue to innovate and develop new ADAS, there is the potential for various design features or functional aspects of these systems to encounter conformance difficulties with legacy Federal Motor Vehicle Safety Standards (FMVSS) governing the performance of such systems. The agency will conduct research as appropriate to complete a timely, efficient, yet thorough evaluation of the new

technology, and of potential unintended challenges that may be posed by the existing standards. For example, research in this area would target data to inform decisions on mirror standards that impact use of alternative camera-based displays in place of rear- or side-view mirrors; lighting standards that impact design and operation of Adaptive Driving Beams (ADB); bumper standards; or bumper standards that may impact the cost-effectiveness of ADAS deployment.

System Reliability, Potential Unintended Consequences, and Safety Benefits

This area involves system and component-level research on sensor reliability factors, system repairs and degradation. Results will allow increased understanding of longer term operational factors that may reduce safety effectiveness. This area will also focus on the benefits and customer use of new emerging advanced technologies. Fundamental information about if and how customers use ADAS systems (e.g. under what driving circumstances systems are engaged or disengaged, differences in use patterns among driver demographics, impacts of various driver interface designs, etc.) are invaluable to understand consumer acceptance factors and challenges, and refine product designs to enable broad-based and proper usage. To accelerate important lessons-learned from early deployments of ADAS technologies, and to help better understand safety benefits, NHTSA performs operational evaluations of novel systems in collaboration with industry partners, and performs targeted safety benefit assessment studies to help guide the agency's focus on the most safety-beneficial technologies.

ADAS Human-Machine Interfaces (HMI)

Advanced vehicle technologies that support the driver have a range of interaction points when information is communicated to the driver and responses are expected. For example, drivers are expected to enter a destination when prompted or to react when an auditory warning sounds as headway distance closes at a rate that will risk a collision unless the driver intervenes. As HMIs continue to evolve, leveraging new advanced control and display technologies, new and additional considerations will emerge. Head-up displays, gesture-based inputs, and augmented reality displays are some examples of emerging HMI technologies that are making their way into vehicles and are part of NHTSA's research program.

Driver Adaptation to ADAS

When examining the cooperation between drivers/users and vehicles/systems, it is critical to measure behavioral changes that could occur beyond reactions to HMI, such as the choices drivers make for trip planning, and the strategies they employ when driving. How drivers/users learn and adapt to vehicle technologies can lead to both positive and negative outcomes. For example, if a driver/user begins to take more risks because he or she believes (correctly or not) an advanced safety system will intervene in time, then that is a negative adaptation. Alternatively, if drivers begin to adopt similar headway distances as an adaptive cruise control system, then there may be a positive adaptation, leading to fewer critical events. Behavioral adaptations represent a significant point of uncertainty about the effectiveness of many of these systems and sometimes undermines efforts to address a safety issue using technology. In FY 2020, ADAS is partially funded from the Highway Safety Research and Development account (\$2 million), but most funding is provided for under the Vehicle Safety account (\$6.30 million).

Driver Readiness

A consistent theme affecting the implementation of advanced vehicle technologies is how drivers may react to indications, warnings, or requests from the vehicle, be it navigation instructions, crash warnings, or take-over requests from partial driving automation systems. The driver's/user's readiness to react is a fundamental issue for all safety technologies, and is therefore a core area of research. Readiness covers a broad range of issues, from inattention and impairment, decision-making, training, driver/user monitoring, and driver engagement.

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

The light vehicle ADAS research program is engaged in a body of research for vehicle technologies that supports safer drivers by presenting them with safety warnings when needed, providing active assistance through automatic interventions in crash imminent situations, and discouraging unsafe driving behaviors such as distracted and alcohol -impaired driving through technological solutions. Research also focuses on technologies that enhance the safety of vulnerable and at risk populations such as teen drivers, older drivers, pedestrians, bicyclists, and motorcyclists. NHTSA's research in advanced driver assistance systems will continue to focus on identifying emerging safety technologies; partnering with industry to develop more efficient and comprehensive assessment methods for safety performance and enhancing our understanding of human-machine interface issues; long-term safety impacts of these advanced technologies; and architectural improvements. The result of this research investment will help NHTSA prioritize its research in technologies that offer the most significant societal benefits and industry to build safety technologies that save lives, prevent injuries for all road users, and mitigate potential unintended consequences.

The outcome of this work will be research findings related to important aspects of advanced driver assistance systems such as effective human-machine interface design, estimated safety benefits, and performance-based test procedures. These and other outputs from this program will help automotive manufacturers, suppliers, and other industry entities to improve their products through more accurate and efficient product evaluations such that societal safety benefits can be enhanced. Furthermore, the field testing of new ADAS to be completed by NHTSA and industry partners will provide insights for further product refinements, as well as for developing programs to promote voluntary adoption of crash avoidance systems and enhance competitiveness among vehicle manufacturers and other industry entities for offering high value and high-performance systems.

The Heavy Vehicle Safety Technologies program is focused on safety systems and innovations that directly map to crashes involving heavy vehicles on US roadways. By continuing to focus on new emerging innovative safety systems on heavy vehicle platforms that show potential to address real world crashes, the safety performance of heavy vehicles - with respect to frequent and severe crashes - may be significantly improved.

VEHICLE SAFETY RESEARCH AND ANALYSIS
Alternative Fuels Vehicle Safety

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Alternative Fuel Vehicle Safety	\$674	\$674

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

NHTSA is gathering information from all sources regarding the safety of emerging transportation fuels including battery, stored gas, and fuel cell technologies. This advanced knowledge is helping to direct the research projects, refine safety assessments, and develop performance tests. NHTSA is partnering with industry and other Federal agencies to develop appropriate safety performance for these alternative fuel vehicles.

In FY 2020, NHTSA requests \$674 thousand for the Alternative Fuel Vehicle Safety research program. Specifically, the requested funding will allow the agency to pursue the following safety research topics:

- Extreme fast charging (350 kW) of batteries in electric vehicles.
- Wireless charging systems for batteries in electric vehicles.

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

NHTSA has worked closely with the Department of Energy (DOE) to understand safety concerns for emerging alternative fuel vehicles. In the past, this collaboration has allowed NHTSA to develop and assess charging safety tests for a range of electric vehicle types and charging systems. The DOE is currently developing extreme fast charging systems with a goal to recharge an electric vehicle in under 10 minutes. NHTSA intends to develop safety practices and test procedures utilizing the prototype vehicles and charging systems under development at the national research laboratories. Batteries in electric vehicles are an important component of the Department’s overall fuel economy goals. This research will support the safe introduction of these vehicles and their charging systems.

Wireless battery charging systems currently exist for a small number of large capacity lithium ion battery systems. NHTSA’s research will develop best practices for the safe use and operation of these systems prior to wider deployment. This research should document safety risks and provide confidence that the current commercial grade systems can be made suitable for routine consumer use.

VEHICLE SAFETY RESEARCH AND ANALYSIS
Vehicle Electronics and Cybersecurity¹⁰

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Vehicle Electronics and Cybersecurity	\$15,000	\$3,469

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

The evolution of automotive technology has included the expanded use of electronic systems, software, and connectivity, starting in the late 1970s. The pace of this technological evolution has increased significantly over the past decade leading to modern vehicles becoming one of the most complex computerized consumer products. Enhanced connectivity and continued innovations along the full spectrum of automation introduced substantial benefits to safety, mobility, and efficiency. Enabling the introduction of proven active safety systems, such as Electronic Stability Control (ESC) and Automatic Emergency Braking (AEB), makes the advent of automated driving a possibility.

As the industry moves toward a future of driving automation systems and nearly ubiquitous availability of vehicle connectivity, the promise of emerging technology is accompanied with a degree of new risk. With the increasing proliferation of electronics and software, our vehicles are exposed to additional failure modes, vulnerabilities, and threats that could jeopardize the safety of the public. Connectivity and automation raise the cybersecurity stakes, and without proactive measures taken across the vehicle lifecycle, risks will rise accordingly. Methodical identification of potential issues and proactive management of complexity are essential to designing vehicle architectures that will respond safely even when there are electronic system failures, software errors, or cybersecurity vulnerabilities.

The Vehicle Electronics and Cybersecurity research program broadly covers two major research areas: Electronics functional safety and Vehicle Cybersecurity. Electronics functional safety is an important part of overall systems safety that deals with safety risk management associated with random failures in sensors, components, systems, and software implementation, as well as operator errors and environmental changes. Vehicle Cybersecurity research deals with the safety risk management associated with intentional manipulation of the vehicular systems and software. While the need for functional safety and cybersecurity both originate from the same systems, risk assessment, risk mitigation, and effective means of life-cycle risk management differ in some areas across these two safety domains.

The goal of the Vehicle Electronics and Cybersecurity research program area is to support the safety assurance of vehicle electronics, software, and cybersecurity such that they do not pose public acceptance barriers for proven safety technologies and driving automation systems. The program

¹⁰ In prior years, this program activity was referenced as “Vehicle Electronics and Emerging Technologies.”

seeks to support the improvements in the cybersecurity posture of motor vehicles, and understand and promote contemporary methods in software development, testing practices, and requirements management as they pertain to robust management of underlying hazards and risks across the vehicle life-cycle. These activities include close collaboration with industry to promote a strong risk management culture and associated organizational and systems engineering processes.

In FY 2020, NHTSA requests \$3.47 million for the Vehicle Electronics and Cybersecurity program. Funding provided in FY 2020 will allow NHTSA to pursue research in the following areas:

Vehicle Electronics Functional Safety

Functional Safety of Driving Automation Systems

Examination of the extensibility of industry process standards in functional and system safety, and hazard analyses techniques for the electronic systems and software of driving automation systems.

Software Assurance Approaches

Explore contemporary methods in automated tools and approaches in software development, testing, and deployment, such as formal methods, and their potential applicability to automotive applications.

Vehicle Cybersecurity

Research to Advance NIST Cybersecurity Framework Application in Automotive Domain

Research to support the automotive industry's adoption and implementation of the National Institute of Standards and Technology (NIST) Cybersecurity Framework across their organizations. This will include targeted research in risk assessment, protection methods, intrusion detection, real-time response mechanisms, as well as planning for expeditious recovery from incidents.

Research to Enhance Cybersecurity Readiness

This research will explore and support industry and NHTSA's ability to continually improve and assess organizational readiness to respond to potentially critical and large scale cyber incidents. This would include exercises engaging industry stakeholders, all relevant departmental organizations, and other government agencies to practice and refine internal processes. This activity will include additional investments in NHTSA's applied cybersecurity capabilities to maintain technical expertise, assess emerging issues independently and expeditiously, and facilitate informed decision-making.

Contemporary Tools, Methods for Vehicle Cybersecurity Resiliency

Continue research in tools, methods, and practices to design cybersecurity resiliency into vehicular systems that could effectively mitigate safety risks. This research would include the possibilities for automated tools that could identify and mitigate some vulnerabilities, such as those explored in Defense Advanced Research Projects Agency (DARPA) challenges.

Collaborative Research

Collaborate and leverage research with key stakeholders, the automotive industry, standards setting organizations, and government agencies to include: Automotive Information Sharing and Analysis Center (Auto-ISAC), Original Equipment Manufacturers (OEM), Department of Homeland

Security (DHS), National Institute of Standards and Technology (NIST), Department of Defense (DOD), Society of Automotive Engineers (SAE), and National Aeronautics and Space Administration (NASA).

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

As motor vehicles have become more software-intensive, safety defects related to vehicle software have gradually increased over the past years. While no crashes or fatalities have been directly attributed to a vehicle cybersecurity incident thus far, the anxiety conjured from the anticipation of such a potential cyberattack on a vulnerable vehicle may well influence public confidence in our Nation's transportation system. This could create a roadblock for the adoption of proven safety technologies. Successful cyberattacks on automotive computer systems and their associated networks may not only lead to the loss of information and data, but may also adversely impact vehicle control systems such as steering, braking, and throttle, resulting in crashes, injuries, and potentially - fatalities. Therefore, electronic systems' safety and cybersecurity may well hold a key to public acceptance of emerging technologies, such as driving automation technologies, that have the potential to significantly reduce and ultimately eliminate motor vehicle crashes.

VEHICLE SAFETY RESEARCH AND ANALYSIS
Automated Driving Systems

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Automated Driving Systems (ADS)	\$10,000	\$7,000

Note: The budget request proposes to fund \$7.00 million for the ADS program within the Vehicle Safety account, and \$3.00 million in funding is provided for under the Highway Safety Research and Development account.

What Is This Program and What Does This Funding Level Support?

There are many lives to be saved with further advancements in modern Advanced Driver Assistance Systems (ADAS). However, in the transportation sector, where nine out of ten serious roadway crashes occur due to human behavior, driving automation technologies possess a significant potential to not only save thousands of lives, but reduce congestion, enhance mobility, and improve productivity. Hence, Automated Driving Systems (ADS), categorically referring to the driving automation systems in the Society of Automotive Engineers (SAE) Levels 3, 4 and 5, is a major area of research emphasis for NHTSA in addition to research on ADAS.

The principal objective of this program area is to focus on the most promising safety-enhancement segment of driving automation and to align the agency’s activities to support and maintain the United States’ global leadership in the safe development, testing, and future deployment of ADS through technological innovation and open market access. Because ADS are still in the development and testing stages - continually and quickly evolving - the agency’s research to support public safety assurance needs to adapt quickly as new innovations are conceived. NHTSA partners closely with technology developers to understand the varying nature of approaches and temporal changes through data gathered through private-sector testing. Through such collaboration, NHTSA focuses on ADS research activities that provide value by bridging research gaps with leveraged resources, and provide leadership through efforts to spur the community to share appropriate information and agree on fundamental safety goals, and leverage best practices.

In FY 2020, NHTSA requests \$7.00 million for the ADS program within the Vehicle Safety account and \$3.00 million to fund the behavioral research activities from the Highway Safety Research and Development account. This research area will support the safe testing and future deployment of ADS priorities, and will include:

Research to Support Decisions on the Removal of Potential Barriers for ADS Vehicles

Most Federal Motor Vehicle Safety Standards (FMVSS) were developed assuming a human driver would be operating the vehicle. With ADS, vehicle manufacturers are presented with opportunities to re-imagine and redesign new vehicle interiors. NHTSA will complete its initial research reviewing the full range of its FMVSS in FY 2020; but the agency anticipates emerging new concepts will necessitate additional research in support of innovative approaches. The objective of

this research is to gather data and evidence that could support decisions about potential adaptation and/or translation of regulations to address unnecessary barriers while ensuring safe operation of vehicles with ADS. NHTSA will also support the review of research, design, and test data submitted as part of exemption petitions; survey other research findings relevant to the case; conduct research activities to confirm or augment available data; and identify a means to categorize and streamline exemption requests.

Research on System Safety Performance of ADS Vehicles

In conjunction with the industry and standards setting organizations, this research will explore approaches, methods, metrics, and tools for public safety assurance purposes to assess how well the ADS performs at a system level to avoid crashes. Research will explore the mix of simulation, track and on-road testing and their role in assuring safety for the public while allowing for different approaches and innovations to take place. This research will explore variable testing concepts around scenarios that could be loosely controlled, randomly introduced, or entirely naturalistic.

Crashworthiness of ADS Vehicles

Vehicle crash mechanics and occupant restraint systems are not directly affected by driving automation. However, occupant behavior and the enhanced sensor systems will affect priorities for a vehicle's safety in the event of a crash. Crashes with manually operated vehicles will inevitably occur during the transition period, and occupant protection will remain a priority. In FY2020, initial research will be completed in evaluation and refinement of existing tools (dummies, human body computer models) using ADS alternative seating arrangement (e.g. rear facing, reclined) experimental kinematic data collected in FY 2018 and FY 2019. Research will also support the application of refined dummies/human body computer models in crashworthiness evaluations of potential alternative seating arrangements that may be present in vehicles with ADS.

Driver Engagement in SAE Level 3 and Dual-mode Level 4 ADS

Vehicles that are designed in a manner where it can be operated by both a driver and an ADS involve control handoff between drivers and ADS in certain circumstances. A driver's readiness to resume control in SAE Level 3 ADS is very critical to safety. For example, emerging driver engagement strategies, such as applying sufficient force to the steering wheel, or simply looking at the roadway ahead, and other engagement strategies have been studied in other fields such as rail, aviation, and space operations will be explored. Driver engagement with the ADS is influenced by several issues, including the human-machine interface, the driver's experience and training with the system, and other situation-specific factors that affect behavioral responses. Near-term issues with driver engagement are predominantly behavioral; therefore, behavioral research efforts will be funded under the Highway Safety Research and Development account.

Accessibility Considerations in ADS Vehicles

Driving automation is expected to provide mobility options not previously afforded to people with disabilities, regardless of cognitive, physical, or even the degree of condition. Vehicles with ADS that are accessible to persons with disabilities will be expected to provide information through appropriate modes to interact with the occupants. Research will be initiated to explore the information needs of persons with disabilities and how these needs could be implemented effectively within a human-machine interface (HMI).

What Benefits Will Be Provided to the American Public Through This Request and Why is this Program Necessary?

Due to proactive government involvement, public-private collaborative research investments, and innovative leadership inherent to the American culture, the U.S. established an early worldwide leadership in ADS development. Supporting this competitive landscape, NHTSA is focusing research on key topics to advance the safe testing and deployment of ADS vehicles that do not include a driver in the vehicle, or offer manual driving controls. Preliminary research indicates if deployed responsibly, there are significant safety enhancement potentials associated with ADS. ADS also offer mobility accessibility to the previously underserved community of individuals unable to acquire a driver's license, to include the elderly and people with disabilities, both cognitive and physical. It is envisioned that the ingenuity and innovation accompanying ADS technologies will be harnessed to provide safe transportation options for all the traveling public. The FY 2020 request will enable research efforts supportive of agency decisions with respect to updates to Federal Motor Vehicle Safety Standards (FMVSS) and associated test procedures to accommodate non-standard vehicle design concepts. Research will also be sponsored and conducted that proactively mitigates public perception concerns through improved transparency and a data-driven approach to safety.

VEHICLE SAFETY RESEARCH AND ANALYSIS
Vehicle Research and Test Center

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Vehicle Research and Test Center - Ohio	\$500	\$500

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

The Vehicle Research and Test Center (VRTC) is NHTSA’s in-house research, development, test, and evaluation laboratory located in East Liberty, Ohio. Research and testing activities conducted at the VRTC support agency decisions and actions with respect to new vehicle systems and issues; agency consumer information programs; test dummy development; injury criteria development; advanced research into cutting edge technologies; and safety issues that require quick reaction, including defect investigations. The full range of testing and research capabilities available to NHTSA at VRTC allows the agency to maximize its testing capabilities to more rapidly study emerging safety issues and more quickly provide benefits to the American public.

In FY 2020, the Vehicle Research and Test Center plans to support a broad range of critical safety areas including:

- Crash avoidance research (light and heavy vehicles), including support for adapting existing agency safety tests and research of new emerging advanced driver assistance technologies;
- Crashworthiness research, including support for adapting existing agency tests and test procedures as well as research on new occupant protection topics to enable deployment of innovative new technologies;
- Biomechanics research including adapting and upgrading existing tools (crash test dummies) for compatibility with new technologies such as Automated Driving Systems (ADS);
- Lab and in-field support for safety defects investigations; and
- Research into complex areas such as ADS and cybersecurity to support development of safety approaches, methods, and tests.

Research in these areas directly support the Department’s goal to reduce transportation related fatalities and serious injuries across the transportation system. This aligns with NHTSA's mission to "Save lives, prevent injuries, and reduce economic costs due to road traffic crashes through education, research, safety standards, and enforcement activity." This program also supports both the Department and agency goals of the deployment of new and innovative technologies.

In FY 2020, NHTSA requests \$500 thousand for the VRTC research program. The requested funding will be used to procure equipment, such as data acquisition and analysis tools, to support

VRTC research and defects analysis programs. Having the necessary equipment to conduct research supportive of Departmental and NHTSA priorities (e.g. ADS, cybersecurity, advanced vehicle technologies, etc.) will be critical to support agency actions to improve safety on our nation's roadways. With new sophisticated and emerging technologies, such as vehicle automation, NHTSA needs to maintain a well-equipped and dedicated center to test, monitor, and investigate these and other emerging safety issues.

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

Motor Vehicles have evolved greatly over the last few years, and the rapid increase in advanced technologies that enhance driver safety and mobility along with ever increasing amounts of complex, software controlled vehicle electronic systems, will drive that evolution even farther in the very near future. The expertise and technical capability of NHTSA's VRTC has been well demonstrated for over 40 years. Numerous high-profile programs have been successfully completed by VRTC in an expeditious and thorough manner. However, NHTSA has recognized the need to enhance the capabilities at VRTC for testing and analyzing emergent safety issues. Providing the capability of testing emergent technologies is necessary to maintain pace with the rapid advances in vehicle technologies and electronics and the resulting new safety issues. While enhancement of research capability in several areas has been identified, the most near-term critical areas are in ADS, cybersecurity, and defects analysis. Enhancement of capabilities for performing safety related research, testing, and analysis is critical. The FY 2020 request will enable the VRTC to maintain and update the equipment and state-of-the-art facilities necessary to assess and investigate the rapid emergence of advanced automotive safety technologies, and to assure the highest level of automotive safety for the American public.

VEHICLE SAFETY RESEARCH AND ANALYSIS
Crash Data Collection

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Crash Data Collection (Includes FARS, CRSS, CISS, SDT, SCI)	\$500	\$500

Note: Crash Data Collection is partially funded from the Vehicle Safety account, but most funding for this program activity is provided for under the Highway Safety Research and Development account.

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

The Crash Data Collection Program provides the quality data that underpins essential traffic safety behavioral and vehicle safety programs and policies. The Crash Data Collection program includes both State crash report-based systems (Fatality Analysis Reporting System, Crash Report Sampling System, Non-Traffic Surveillance and State Data Transfer) and crash investigation-based systems (Crash Investigation Sampling System and Special Crash Investigations).

In FY 2020, NHTSA proposes \$500 thousand for Crash Data Collection activities funded from the Vehicle Safety account. The crash data collection systems comprise both police-reported motor vehicle crash data reports collected by States and NHTSA-directed investigations of crashes representative of all traffic crashes. Police-reported crashes from State record-based systems are recoded into a uniform format to provide counts and trends. NHTSA-directed crash investigations provide the detailed data required for countermeasure development and evaluation. A sample-based approach provides nationally representative data at a small fraction of the cost to investigate or collect and manually recode the millions of police-reported crashes. Each data collection system is described in detail in the Crash Data Collections section under the Highway Safety Research and Development account.

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

Funding at this level, in conjunction with funding requested within the Highway Safety Research and Development account, will allow the agency to maintain its core program. Accurate, accessible, timely, and standardized data allow decision makers to identify the primary factors related to the source of crashes and their outcomes, develop and evaluate effective safety countermeasures, support traffic safety operations, measure progress in reducing crashes and their severity, design effective vehicle safety regulations, and target safety funding.

With relevant and timely data, NHTSA can make informed policy, program, and regulatory decisions that will lead to improved motor vehicle safety. With quality data in usable formats, resources will not be wasted compiling information that may identify emerging trends and serious safety problems. With quality data, the effectiveness of programs standards and progress in meeting safety targets can be accurately measured. Better data leads to safer roads and safer vehicles.

Detailed Justification for Vehicle Safety Rulemaking Programs

FY 2020 – RULEMAKING – SUB-PROGRAM BUDGET REQUEST

(\$000)			
Rulemaking Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Safety Standards Support	\$2,041	\$1,555	\$2,041
New Car Assessment Program	\$15,000	\$16,000	\$8,100
Fuel Economy Program	\$7,504	\$7,445	\$12,445
Rulemaking Total	\$24,545	\$25,000	\$22,586

The Rulemaking programs support the Department’s efforts to improve safety while reducing regulatory costs and burdens by developing, reforming, or updating the Federal Motor Vehicle Safety Standards (FMVSS) and other regulations in the key areas of crash avoidance, crashworthiness, post-crash safety, consumer information, and fuel economy.

In FY 2020, NHTSA requests \$22.59 million for the Office of Rulemaking. Additionally, the budget requests include \$5.00 million to be used for research and analysis for the CAFE rulemaking to establish medium- and heavy-duty vehicle fuel economy standards. The Safety Standards Support program supports the Office of Rulemaking’s regulatory, technical, and administrative operations. The New Car Assessment Program (NCAP) informs consumers of the safety performance and technologies of new vehicles. The Fuel Economy program allows NHTSA to conduct new rulemakings for fuel economy standards for future years and to support related compliance activities.

The requested funding will also enable NHTSA to maintain its core programs and advance key safety initiatives to include:

- Reviewing the regulatory portfolio;
- Identifying opportunities to safely address unnecessary regulations and control regulatory costs;
- Expanding capabilities for advances in safety technology that reduce fatalities and injuries and increase efficiencies;
- Continuing progress on mandated regulations, such as those that enhance motor coach and child passenger safety in Moving Ahead for Progress in the 21st Century Act (MAP-21) (P.L. 112-141) and tire safety in the Fixing America’s Surface Transportation (FAST) Act (P.L. 114-94); and
- Continuing to conduct analytical work to support fuel economy rulemaking for future years.

RULEMAKING
Safety Standards Support

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Safety Standards Support	\$1,555	\$2,041

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

The Safety Standards Support program promotes the Department’s priorities for safety, accountability, and innovation through regulatory, technical, and administrative operations. The requested resources will fund programmatic expenses including federal register publication costs and systems management. It will also support NHTSA’s rulemaking portfolio and public docket, and technical assistance for support to assess, develop, and revise Federal Motor Vehicle Safety Standards (FMVSS) and other regulations in the key areas of crash avoidance, crashworthiness, post-crash, and consumer information. This support includes test method developments to update existing standards or promulgate new ones, determination of injury reduction benefits, and product testing to establish baseline performance. This program also promotes adoption of the United States Federal motor vehicle safety standards internationally, and it will continue to support Congressional mandates associated with the Moving Ahead for Progress in the 21st Century (MAP-21) Act and the Fixing America’s Surface Transportation (FAST) Act, among others. Funding may also support additional testing in response to public comments on proposed rules or to address petitions for reconsideration.

In FY 2020, NHTSA requests \$2.04 million for the Safety Standards Support program. Motor vehicle technology is becoming increasingly complex and the agency’s knowledge and expertise must continue to evolve to inform policy decisions. The requested funding will allow NHTSA to update standards to keep pace with rapid technological change and ensure the agency retains its ability to effectively protect the safety of the American driving public.

The proposed request will support work on advanced technology and Automated Driving Systems (ADS). It will also support NHTSA’s continued efforts on mandated regulations, such as those to enhance motor coach and child passenger safety authorized by MAP-21 or minimum performance standards for tire wet traction as prescribed by the FAST Act. For FY 2020, these activities include:

- Performance testing of new vehicles equipped with certain automated driving technology systems and determine the appropriate performance testing criteria;
- Deregulatory actions to identify existing regulatory barriers that may block the introduction and certification of ADS, particularly those that are not equipped with controls for a human driver;
- Continuing work toward improving motor coach and heavy truck vehicle safety under MAP-21;

- Advancing work on child safety rulemakings to upgrade frontal impact protection and improve the usability of child restraint anchorage systems under MAP-21;
- Continuing to support safety standards development for alternative fuel vehicles, including electric, hydrogen, propane, and natural gas-powered light and heavy-duty vehicles;
- Continuing to support consumer information and theft prevention standards; and
- Finalizing a rulemaking proposal to safely enable adaptive driving-beam headlights in the United States.

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

With 37,133 fatalities due to motor vehicle crashes in 2017, there is much work to be done to improve vehicle safety.¹¹ Motor vehicle safety has improved over the years due to improved vehicle designs. Of which, many were a result of FMVSS domestic rulemaking, and international engagement to encourage harmonization with the FMVSS. The public will be served by having vehicles that meet or exceed a minimum level of safety performance, as evidenced by people avoiding injuries and surviving crashes, which may have been un-survivable in the past, or the avoidance of crashes that would otherwise be inevitable. The funding is requested to ensure safety, update and maintain relevance of existing standards, enable new technologies, and identify and eliminate unnecessary regulations.

¹¹ 2017 Fatal Motor Vehicle Crashes: Overview DOT HS 812 603

RULEMAKING
New Car Assessment Program

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
New Car Assessment Program (NCAP)	\$16,000	\$8,100

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

The New Car Assessment Program (NCAP) informs customers about the safety performances of new vehicles. Based on a series of NHTSA-performed crash tests and advanced crash avoidance technology performance evaluations on new vehicles, NCAP rates the performance of new passenger cars and light trucks. Specifically, NCAP informs consumers using a 5-Star Safety Ratings system of the safety of vehicles based on frontal and side impact crash tests, as well as rollover resistance tests. Child safety seats are similarly rated for their ease of use. Certain advanced crash avoidance technologies that are equipped in new vehicles are additionally recommended to consumers (not part of the 5-star Safety Rating system) if they pass NCAP’s performance specifications. Vehicle safety ratings, advanced technology recommendations, child safety seat ease of use ratings, child safety-related information, and other consumer information related to vehicle safety are provided on the agency’s website (www.nhtsa.gov). Vehicle safety ratings from crash and rollover resistance tests (not recommendations of certain advanced crash avoidance technologies) are also provided at the point of sale on the window sticker (also known as the Monroney label) that is applied to new vehicles.

The request will support program operations including (1) new vehicle information, (2) crash testing of new vehicles, (3) performance testing of advanced crash avoidance technology systems on new vehicles, (4) reviewing test data, (5) disseminating safety rating information to the public, and (6) educating consumers about adult and child occupant protection related to vehicle safety.

A key performance measure for NHTSA is the percentage of new vehicles rated by NCAP for a given model year vehicle fleet. NHTSA anticipates testing and rating a substantial percentage of new model year vehicle fleet (based on projected sales volume) under NCAP in FY 2018 and FY 2019.

In FY 2020, NHTSA requests \$8.10 million for NCAP to support vehicle procurement, testing, oversight, and execution of the numerous operations of the NCAP program, as well as the dissemination of safety information to the American public. More specifically, the requested funding will support:

- Crash testing of new vehicles to provide safety ratings information as part of the 5-Star Safety Ratings system on a substantial percentage of the new vehicle fleet;
- Testing of new vehicles to assess rollover-risk propensity as part of the 5-Star Safety Ratings system;

- Performance testing of new vehicles equipped with certain advanced crash avoidance technology systems and assign credit to those that meet NCAP's performance testing criteria;
- Continuing efforts to make crash avoidance information available to the public on the window sticker of new vehicles at the point of sale (the Monroney labels);
- Analysis of Automated Driving Systems (ADS) to better understand the safety performance of systems being sold in the U.S.;
- Consumer-friendly focused approach to enhance the dissemination of vehicle safety information to the public that includes simpler language, safety data customization and classification, and better data search functionality;
- Outreach and education campaigns to not only continually promote the program's 5-Star Safety Ratings system but also increase consumer awareness and understanding of vehicle safety, especially the safety potential of advanced crash avoidance technologies;
- Development of the database for vehicle safety information submission and dissemination;
- NCAP infrastructure operations and maintenance, including software and contract labor costs;
- Ease of use assessments for child safety seats, with ratings posted on www.nhtsa.gov and in NHTSA publications;
- Side air bag testing to protect out-of-position occupants; and
- Promotion of up-to-date information about dangers to children in and around vehicles, and other vehicle safety information such as 15-passenger van and tire safety.

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

Consumers consider safety to be an influential factor when making vehicle purchasing decisions. NCAP provides a reliable, transparent, and unbiased assessment of the safety performance of passenger cars and trucks sold in America. More specifically, NCAP provides vehicle safety information including performance evaluations on advanced crash avoidance technologies. NCAP information, including safety ratings, are disseminated to the public via NHTSA's website and other consumer information outlets. Currently, only safety ratings obtained from crash tests are displayed on window stickers of new vehicles at the point of sale. Efforts on how to best include crash avoidance assessment next to safety ratings information at the point of sale are ongoing.

The requested funding amount in FY 2020 enables NHTSA to provide meaningful vehicle safety information to consumers, including technology innovations in vehicle safety, and consumer education on the safety potential of advanced crash avoidance technologies. Advanced safety systems that involve vehicle automation will be studied for possible consideration in NCAP. Furthermore, the funding will allow the agency to test and rate a substantial percentage of the vehicle fleet sold in the United States.

RULEMAKING
Fuel Economy Program

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Fuel Economy Program (CAFE)	\$7,445	\$12,445

What Is This Program and Why Is It Necessary?

The Department of Transportation has been setting Corporate Average Fuel Economy (CAFE) standards since the late 1970s under the guidance of the Energy Policy and Conservation Act of 1975 (EPCA), which mandated the doubling of fuel economy of light duty vehicles in 10 years. CAFE standards are intended to reduce energy consumption by increasing the fuel economy of cars and light-trucks. In 2007, Congress enacted the Energy Independence and Security Act (EISA), which amended EPCA. EISA reformed the CAFE structure by mandating vehicle attribute-based standards as well as ratable and substantial increases in fuel economy. The overall light duty fleet must reach 35 miles per gallon (mpg) by 2020 and be set at maximum feasible levels in every model year. In addition, EISA authorizes and directs the Department to issue standards for medium and heavy-duty vehicles. For rulemaking activities to establish average fuel economy standards under chapter 329 of title 49, United States Code, the Secretary of Transportation retains primary and final decision-making authority.

In FY 2020, NHTSA requests \$12.45 million for the Fuel Economy program. The requested funding will provide support for future rulemaking programs, including the establishment of the next phase of passenger car and light-duty truck CAFE standards, which will build on the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for model year 2021-2026 vehicles, and the next phase of medium- and heavy-duty vehicle fuel efficiency standards. EISA requires NHTSA to establish light-duty CAFE standards for no more than five years at a time. The agency will continue to improve fuel economy programs and conduct new assessments of technology effectiveness, cost, and capability of industry to implement new technologies for both the light-duty and medium- and heavy-duty vehicles. NHTSA will also conduct assessments of the factors considered and approaches used to estimate feasibility and impacts of potential standards. Requested funding will also be used to cover part of the publication cost for rulemaking documents.

The budget request also supports the CAFE Management Suite, which standardizes the method to receive compliance data from the Environmental Protection Agency (EPA) and manufacturers. The Management Suite makes the data easily accessible to NHTSA’s fuel economy rulemaking and compliance programs, with certain data also available on a web page to the public.

In FY 2020, NHTSA’s budget request includes a \$5.00 million increase to carry out aspects of the fuel economy programs currently administered by EPA. The \$5.00 million would support research and analysis for rulemaking to establish medium- and heavy-duty vehicle fuel efficiency standards while concurrently establishing separate light-duty vehicle CAFE standards. Medium- and heavy-

duty vehicles are highly diverse in their designs and missions. To help ensure fuel efficiency standards achieve real world improvements, there are unique standards and regulations for each of the 5 segments: Tractors, trailers, heavy-duty pickup trucks and vans, vocational vehicles, and the engines in tractors and vocational vehicles. Rulemaking requires in-depth assessment and independent rulemaking analysis for each segment. For past rulemaking, NHTSA did not have sufficient staff or budget to conduct the necessary assessments and analyses for rulemaking efforts, and the agency leveraged significant support from EPA to conduct those assessments and analyses.

The next phase of medium- and heavy-duty vehicle fuel efficiency rulemaking, and light-duty CAFE standards will include research, analysis, and stakeholder outreach. The breakdown of work that would be supported with the FY 2020 funding is as follows:

- \$1.00 million to fund research on the effectiveness of current and future technologies and combinations of technologies to improve the fuel efficiency of each of the five vehicle segments, and to identify barriers to deployment of the technologies. The research would include both testing and simulation modeling.
- \$500 thousand to fund research on the costs of implementing fuel efficiency improving technologies, including incremental retail prices and life cycle cost elements, for each of the five segments.
- \$700 thousand to fund research into characterizing the technologies present on the baseline fleet, how vehicles are operated, how travel costs impact vehicle miles traveled, and/or other studies, depending on an assessment of the most critical data needs at the time the research is initiated.
- \$650 thousand to conduct assessments and analyses, provide technical support for research contracts, and prepare policy briefing materials, and for support to represent NHTSA in meetings with stakeholders (for reference, over 400 meetings were held with stakeholders to inform the 2016 rulemaking).
- \$2.15 million to fund the Department of Transportation (DOT) Volpe Center to develop models and tools to assess the lowest cost pathways manufacturers could use to comply with potential standards and the impacts of the potential standards, to acquire and assess information and data and to prepare inputs for the analyses, and to conduct assessments and analyses of the outputs of the analyses. Each of the five segments would be analyzed independently.

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

The CAFE and medium- and heavy-duty fuel efficiency programs play a key role in the Nation's energy policy, and they address energy independence and energy security and have highly significant economic impacts. The CAFE program also impacts highway safety. The SAFE Vehicles Rule proposal for model years 2021-2026 projects the proposed standards would reduce societal costs by \$500 billion and reduce crash fatalities by 12,700 over the lifetimes of vehicles built through model year 2029. The funding will provide NHTSA with resources to ensure that the analysis for future CAFE standards and work on medium- and heavy-duty vehicle fuel efficiency standards will continue to be based on sound science and empirical evidence.

The Energy Policy and Conservation Act of 1975 and Energy Independence and Security Act of 2007 direct the Department of Transportation to set passenger car, light-truck, and medium-duty passenger vehicle CAFE standards and medium- and heavy-duty vehicle fuel efficiency standards.

Detailed Justification for Vehicle Safety Enforcement Programs

FY 2020 – ENFORCEMENT - SUB-PROGRAM BUDGET REQUEST

(\$000)			
Enforcement Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Vehicle Safety Compliance	\$11,984	\$10,303	\$7,755
Defects Investigation ¹	\$20,000	\$22,548	\$11,612
Odometer Fraud	\$170	\$149	\$175
Enforcement Total	\$32,154	\$33,000	\$19,542

¹ The Vehicle Safety account provides \$11.61 million in funding for Defects Investigation program activities. Additionally, the Highway Safety Research and Development account provides \$2 million in funding for behavioral safety recall efforts.

In FY 2020, NHTSA requests \$19.54 million for Enforcement programs. NHTSA’s Enforcement program activities support the Department’s safety priorities by ensuring industry compliance with motor vehicle safety standards; investigating safety-related defects in motor vehicles and motor vehicle equipment; enforcing the Federal odometer law; encouraging enforcement of State odometer law; and ensuring that manufacturers conduct recalls to remove unsafe motor vehicles and equipment from the Nation’s highways. The FY 2020 budget request will support enforcement work in the following areas:

- Completing critical vehicle crash avoidance and crashworthiness compliance testing, including developing new test procedures and testing for compliance with new safety regulations issued in response to Moving Ahead for Progress in the 21st Century (MAP-21) Act and continued in the Fixing America’s Surface Transportation (FAST) Act;
- Completing critical compliance testing of regulated equipment, including items such as child restraints, motorcycle helmets, tires, seat belts, and brake hoses;
- Continuing outreach to foreign vehicle and equipment manufacturers, and focused enforcement of imported motor vehicle equipment;
- Maintaining a dedicated source of training for the Office of Defects Investigation (ODI) investigators and data analysts to better identify potential defects;
- Providing contract support for additional field investigations;
- Continuing to support the Corporate Average Fuel Economy (CAFE) and Medium/Heavy duty Fuel Consumption (FC) enforcement activities, including enforcement for standards that will be established through Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for model year 2021-2026 vehicles;
- Continuing to target odometer fraud that often masks the actual condition of used vehicles;
- Continuing to maintain an Automated Driving Systems (ADS) database that will allow multiple program offices access to information through the collection and analysis of imported and domestic vehicle information (creating the ability to identify safety problems and trends); and
- Developing processes for defects investigations of vehicles equipped with ADS to effectively meet growing challenges to identify safety defects.

ENFORCEMENT
Vehicle Safety Compliance

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Vehicle Safety Compliance	\$10,303	\$7,755

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

The Office of Vehicle Safety Compliance program (OVSC) contributes directly to NHTSA’s mission to save lives, prevent injuries, and reduce economic costs due to road traffic crashes, by conducting investigations through ongoing testing, inspections, analysis, and cooperation with other Government entities, namely U.S. Customs and Border Protection (CBP).¹² These investigations uncover violations of the Safety Act¹³ by identifying motor vehicles and motor vehicle equipment (e.g., tires, child restraints, motorcycle helmets, etc.) that do not meet applicable Federal Motor Vehicle Safety Standards (FMVSS) and other regulations, and cannot be lawfully imported or sold in the United States. Failure of motor vehicles and items of motor vehicle equipment to comply with FMVSS can lead to fatalities, injuries, and property damage. When a noncompliance is confirmed, OVSC helps ensure that the manufacturer or importer recalls the vehicle or equipment item and provides an adequate remedy for the noncompliance.

OVSC is also responsible for administering various NHTSA regulations. OVSC registers importers of nonconforming vehicles and reviews conformity data those importers submit on the vehicles they import. OVSC processes import eligibility petitions submitted by registered importers and requests for permission to temporarily import nonconforming vehicles for research or demonstration purposes. OVSC also operates and maintains a tire test facility in San Angelo, Texas, which is utilized both by NHTSA and commercial entities to collect data necessary to publish consumer information related to tires. OVSC enforces the Corporate Average Fuel Economy (CAFE) and Fuel Consumption (FC) regulations by ensuring proper vehicle classification, collecting civil penalties, tracking available credits, and monitoring the transfer and trading of credits.

The funding also supports OVSC’s web portal and databases and the Motor Vehicle Importation Information (MVII) system. OVSC provides manufacturer, modifier, and testing databases to the public through the NHTSA web site www.nhtsa.gov. The MVII is a tracking system that provides the ability to record and report on basic identifying information related to imports such as registered importers, petitions, compliance periods, official correspondence, and applicable fees.

¹² In 2017, NHTSA responded to approximately 857 port inquiries.

¹³ National Traffic and Motor Vehicle Safety Act of 1966.

NHTSA's funding for this program will allow OVSC to develop objective and repeatable test procedures and maintain contracts with test facilities to complete critical testing of new motor vehicles for compliance with crash avoidance and crashworthiness standards; to complete critical testing of motor vehicle equipment; to provide consumer information related to tires; to process applications related to the importation of Canadian and grey market vehicles; and to enforce CAFE and FC regulations for passenger vehicles, light-trucks, and medium/heavy commercial vehicles. The OVSC will also continue to work with the U.S. Customs and Border Protection (CBP) to help prevent noncompliant and/or defective motor vehicles and equipment from entering the United States as part of the statutory requirements of Moving Ahead for Progress in the 21st Century Act (MAP-21) (P.L. 112-141) and the Fixing America's Surface Transportation (FAST) Act (P.L. 114-94).

In FY 2020, NHTSA requests \$7.76 million for the Vehicle Safety Compliance program. The requested funding will allow NHTSA to accomplish the following objectives:

- Complete critical vehicle crash avoidance and crashworthiness compliance testing;
- Complete critical compliance testing of regulated equipment, including items such as child seats, motorcycle helmets, tires, seat belts, and brake hoses;
- Maintain contracts with independent test facilities for performing compliance testing;
- Continue outreach to foreign vehicle and equipment manufacturers and focused enforcement of imported motor vehicle equipment;
- Continue to monitor new entrants into motor vehicle and equipment manufacturing both inside and outside the United States for compliance with the Federal Motor Vehicle Safety Standards (FMVSS);
- Continue enforcement of existing CAFE and FC standards and regulations;
- Maintain NHTSA's existing tire safety facility to include repairs and improvements to buildings, grounds, and test track areas;
- Continue operations and maintenance of the Vehicle Safety Compliance web portal and databases and the MVII system including hosting, software and contract labor costs; and
- Continue support of NHTSA's efforts towards the introduction, regulation, and testing of Automated Driving Systems.

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

In 2017, 37,133 people died on U.S. roads in motor vehicle crashes and millions were injured.¹⁴ Based on a recent study that examined motor vehicle crashes in 2010, the annual societal costs of these crashes total \$836 billion, including costs associated with lost quality of life, lost productivity, medical costs, legal and court costs, emergency medical service costs, insurance administration costs, congestion costs, property damage, and workplace losses.¹⁵ All of these costs are borne by the American public, either directly through out of pocket expenses and physical injury associated with the crash, or indirectly through higher insurance premiums, taxes that cover public

¹⁴ 2017 Fatal Motor Vehicle Crashes: Overview DOT HS 812 603

¹⁵ Blincoe, L. J., Miller, T. R., Zaloshnja, E., & Lawrence, B. A. (2015, May). *The economic and societal impact of motor vehicle crashes, 2010. (Revised)* (Report No. DOT HS 812 013). Washington, DC: National Highway Traffic Safety Administration.

revenue-based health programs, or higher medical care costs that subsidize unpaid charges. These costs continue today, and are likely even higher due to increases in the number of motor vehicle crashes and inflation.

The OVSC is essential to enforce compliance with minimum safety standards for motor vehicles and motor vehicle equipment which prevent fatalities, injuries, and property damage. NHTSA estimates that 613,501 lives have been saved from 1960 through 2012 because of vehicle safety technologies associated with the Federal Motor Vehicle Safety Standards.¹⁶ In the absence of an active enforcement program, compliance would essentially be voluntary. This situation would likely lead to the markets being flooded with noncompliant vehicles and equipment, creating enormous safety risks for consumers and increased costs for U.S. households.

OVSC develops and implements performance tests to help ensure the motor vehicle and motor vehicle equipment industry's compliance with the FMVSS, thus saving thousands of lives in recent years through crash protection and crash avoidance. Consumers have benefited greatly from the industry's generally successful attempts to comply with the FMVSS, which are influenced by OVSC's compliance tests and investigations. These tests and investigations help protect millions of consumers from the risks posed by noncompliant vehicles and items of equipment.

As previously noted, the costs to society resulting from motor vehicle crashes is substantial. The evidence that this program works is two-fold. Over the past three years, approximately 506 compliance recalls affecting over 6.8 million motor vehicles or motor vehicle equipment were submitted to NHTSA. OVSC's compliance programs influence manufacturers to submit recalls directly and indirectly. Without the compliance programs in place, the number of noncompliant products used by the public would be substantially greater, and the ability of vehicles and motor vehicle equipment to reduce injuries and fatalities would be diminished.

¹⁶ Kahane, C.J. (2015, January). *Lives saved by vehicle safety technologies and associated Federal Motor Vehicle Safety Standards, 1960 to 2012 – Passenger cars and LTVs – With reviews of 26 FMVSS and the effectiveness of their associated safety technologies in reducing fatalities, injuries, and crashes.* (Report No. DOT HS 812 069). Washington, DC: National highway Traffic Safety Administration.

ENFORCEMENT
Office of Defects Investigation

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Defects Investigation	\$22,548	\$11,612

Note: The budget request proposes to fund \$11.61 million for the Defects Investigation program within the Vehicle Safety account, and \$2.00 million in funding is provided for under the Highway Safety Research and Development account.

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

The Office of Defects Investigation (ODI) investigates potential vehicle defects through analysis of trends in data received by many sources, and where appropriate, seeks recalls of vehicles and vehicle equipment that pose an unreasonable risk to safety. From 2014 - 2018, ODI opened over 180 investigations into potential defects and issued 14 consent orders to vehicle manufacturers that were found to be non-compliant with their defect and recall reporting obligations. Vehicle and equipment recalls are at historically higher rates over the past three years due to increased ODI oversight and actions taken with and by manufacturers. In 2018, ODI's recall management division processed 1035 vehicle and vehicle equipment recalls resulting in over 35 million units under recall, including vehicles and equipment.

NHTSA continues to develop and maintain a comprehensive and sophisticated data warehouse/system, Artemis, to securely store and manage a voluminous amount of Early Warning Reporting (EWR) data submitted by manufacturers, per requirements of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act. Under ODI's new processes and organizational structure, screening of more than 75,000 annual complaints from vehicle owners is systematically coupled to review of EWR and other data to determine whether anomalies or trends exist that potentially indicate the presence of a safety-related problem. ODI then applies a risk severity and frequency-based approach to determine whether to open a defect investigation. This program enhances safety on our Nation's highways by allowing NHTSA to investigate motor vehicles and items of motor vehicle equipment for possible defect trends and, where appropriate, seek recalls of vehicles and vehicle equipment that pose an unreasonable safety risk. When recalls are issued, this program monitors manufacturers and ensures that the manufacturer sufficiently and quickly remedies the identified vehicle safety issues.

Safety recalls are a safety critical tool to NHTSA's mission of reducing the risk of injury or death to the motoring public due to safety defects or failures to comply to minimum safety standards. NHTSA's Recall Management program monitors the field execution of the hundreds of motor vehicle and motor vehicle equipment safety recalls it receives annually. This monitoring includes intake and review of manufacturer reports on the completion rates of their safety recalls.

ODI has five fully staffed investigative divisions processing the data received through the Artemis system as well as other sources. Current funding supports Artemis operations and maintenance on a daily, round-the-clock schedule. ODI's Trends Analysis Division performs advanced data analytics on EWR and other identified data sources to assist in defect pre-investigative processes. Finally, testing capability (resources and equipment) to analyze vehicles and components for potential safety defects by staff at NHTSA's Vehicle Research and Test Center (VRTC) in Ohio will add to ODI's abilities to assess vehicle defects. With these operations in place for FY 2020, ODI will be able to more effectively screen data, perform data analysis, and carry out investigations that may ultimately lead to vehicle and equipment recalls.

In FY 2020, NHTSA requests \$11.61 million for the Office of Defects Investigation program from the Vehicle Safety account to complement the \$2.00 million for the ODI Recall Management program from the Highway Safety Research and Development account. The Recall Management funding will allow NHTSA to research consumer behavior related to recall response and maximize the effectiveness of our recall efforts. The total funding requested will allow ODI to continue to improve its effectiveness and meet growing challenges to identify safety defects quickly, ensure remedies are implemented promptly, and inform the public of critical information in an effective manner.

More specifically, the requested funding for FY 2020 will support continuation of the following activities:

- Enhanced screening of consumer complaints of potential safety-related defects with motor vehicles or motor vehicle equipment, including child safety seats and tires;
- Investigations into allegations of safety-related defects, including recalls where the remedy or the scope of the vehicles included was allegedly inadequate;
- Expanded reviews of manufacturer technical service bulletins and dealer field reports to ensure that consumers receive appropriate notification of safety-related problems;
- Stakeholder outreach efforts to encourage the reporting of safety-related problems in motor vehicles and motor vehicle equipment;
- Resolution of petitions requesting NHTSA to open investigations into alleged safety problems; and
- Expedient review of all manufacturer input to the Early Warning System to help determine trends and inform investigations.

In addition to the continuation of existing ODI activities, the budget request includes an increase of \$2.5 million to support the Department's emphasis on the sustainability of the enhancements and technology-driven innovation efforts to include the operations and maintenance support of the Advanced Case Management (ACM) system coupled with continued customization of the Corporate Information Factory (CIF). The resources are needed to maintain ODI's information technology tools, pay for enhancements and customizations of ACM and CIF software, which will improve ODI's capability to integrate advanced data mining, and analytical capabilities necessary to implement an aggressive defect screening and investigation program.

Furthermore, ODI will ensure adequate contractor resources to support workforce demands and surges; development of processes for defects investigations of Automated Driving Systems (ADS) to effectively meet growing challenges to identify safety defects; and maintain an ADS database that will allow the ability to identify safety problems and trends.

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

The requested funding will allow NHTSA to continuously improve the quality of ODI's data screening and investigation processes, increase the vehicle recall completion rates, monitor recalls for adequacy of scope and remedy, continue to respond to Congressional and consumer inquiries, and ensure that all public information related to investigations, recalls, and complaints is current.

Without NHTSA's investigative process, millions of vehicles would likely go uncorrected, thus putting consumers at risk. The ODI public website receives on average 50,000 visitors per day who are using the agency's "Vehicle Identification Number (VIN) Look-up" tool to see whether their vehicles have open recalls, to search for recalls and investigations, to file complaints, or to conduct research before purchasing a vehicle. Furthermore, the collection of Early Warning Reporting data has forced manufacturers to take a closer look at their fleet performance and, in some instances, has led to identification of defects and recalls much earlier in a vehicle's lifecycle.

ENFORCEMENT
Odometer Fraud Investigations

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Odometer Fraud Investigations	\$149	\$175

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

Odometer tampering has evolved into a cybersecurity issue and continues to be a serious crime and consumer fraud issue. Odometer fraud often masks the actual condition of used vehicles, which increases the safety risks associated with their use and hides the need for necessary safety maintenance and repairs. NHTSA’s criminal investigators conduct investigations of large-scale odometer fraud schemes and work closely with the Department of Justice’s Office of Consumer Protection prosecutors to ensure that worthy cases are effectively prosecuted. NHTSA also works under cooperative agreements with several State agencies to provide notification to owners of vehicles identified during investigations and advise them of the mileage discrepancies and their rights and remedies under the Federal odometer law. NHTSA encourages all State agencies to provide this notification and assists them when necessary.

In FY 2020, NHTSA requests \$175 thousand for the Odometer Fraud Investigations (OFI) program. The FY 2020 funding will enable a continuation of cooperative agreements with multiple States, as well as supplement efforts to research the rate of odometer fraud occurrence in older vehicles, electronic odometer security, and e-odometer statements. Cooperative agreements with multiple State enforcement agencies assist our efforts to encourage the start of new odometer fraud activities or enhance existing programs to reduce the occurrence of odometer fraud. Through these cooperative agreements, NHTSA helps deter future odometer law violations, saving consumers millions of dollars in maintenance and repair costs and better enabling purchasers of used vehicles to keep their vehicles safe and roadworthy. The funding will also allow the Office of Odometer Fraud Investigation to maintain and improve its specialized criminal law enforcement equipment to ensure officer safety and efficient investigative practices.

This requested funding for FY 2020 will support:

- Investigations of odometer fraud for criminal prosecution;
- Seeking injunctions against violators;
- Seeking recovery of damages for defrauded consumers;
- Continuing to fund cooperative agreements with multiple State enforcement agencies;
- Analyzing available data and continuing to seek new data regarding the frequency of odometer fraud in older vehicles for which odometer statements are not required at sale or change of ownership;

- Continuing to support enforcement efforts against vendors of odometer tampering devices, as well as vehicle sellers who use the devices to defraud their customers and place potentially unsafe vehicles on the road; and
- Continuing to explore secure protocols for the use of e-odometer statement;

The budget request includes an increase of \$26 thousand for enforcement program activities that support the Department's emphasis on identifying and eliminating potential safety risk associated with odometer fraud. The additional funds will allow OFI to continue to combat against odometer fraud activities; train and certify personnel investigative staff; increase awareness through cooperative agreements and outreach programs; and procure investigative equipment and law enforcement supplies.

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

Because vehicles now last longer than in past years, Federal and State odometer enforcement personnel are dealing with an increase in odometer fraud related to older vehicles that are currently exempt from written odometer statements at the time of transfer. In addition, odometer tampering devices are being imported, sold on the Internet, and used to tamper with certain types and generations of digital odometers with almost no way for detection and no conclusion about the extent of damage they may cause to other data recorders on a vehicle. These handheld programming devices are capable of "hacking" into a vehicle's controller area network and manipulating software code related to odometer settings. This type of manipulation could not only deceive consumers, but it could also tap into other vehicle systems that use mileage data in their algorithms and potentially mask safety problems with vehicles.

The program's criminal investigators are engaged in multiple interstate odometer fraud investigations involving thousands of vehicles and hundreds of illicit programming devices.

Strong enforcement of the Federal and State odometer laws through prosecutions with stiff sentences appears to be one of the most effective way to address the problem. Since 1984, the Program's odometer fraud investigations have resulted in more than 285 criminal convictions in 36 States with prison sentences ranging from one month to ten years, criminal fines totaling more than \$3 million, and court ordered restitution totaling more than \$17 million.

NHTSA
FY 2020 VEHICLE SAFETY PROGRAMS
ADMINISTRATIVE EXPENSES

(\$000)			
Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Salaries and Benefits	\$52,996	\$60,704	\$60,202
Travel	\$538	\$592	\$492
Transportation of Things	\$70	\$70	\$70
Rent, Communications & Utilities	\$5,445	\$5,703	\$5,474
Printing	\$357	\$357	\$357
Other Services	\$20,069	\$12,418	\$6,270
Supplies	\$3,011	\$2,131	\$2,163
Equipment	\$1,025	\$1,025	\$1,040
Total Administrative Expenses	\$83,510	\$83,000	\$76,067
FTE	322	363	357

Administrative Expenses

In FY 2020, NHTSA’s Vehicle Safety request includes \$76.07 million for administrative expenses. Costs include the salaries and benefits for NHTSA employees who directly work on or indirectly provide support to the Vehicle Safety programs together with other normal business expenses such as personnel operations, facilities management, parking management, printing and graphics, mail operation and dockets management operations, building security, utilities and building maintenance, voice, cable and wireless communications, Disability Resource Center, substance abuse awareness and testing, financial services, and procurement and acquisition services.

In FY 2020, NHTSA will continue to distribute administrative expenses using a methodology based primarily on direct FTE allocation for the following categories: salaries and benefits; travel; transportation of things, rent, printing, supplies, equipment; and other services. Additionally, NHTSA payments for centralized administrative and support services for the Department’s Working Capital Fund (WCF) are estimated at \$29.34 million in FY 2020, and the expense is shared between accounts. The estimate assumes IT Shared Services will be brought under the Department’s WCF and is subject to change pending final determination of the agency’s contribution.

EXHIBIT III-1

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH
HIGHWAY SAFETY RESEARCH & DEVELOPMENT
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)**

	FY 2018	FY 2019	FY 2019	FY 2020
	ACTUALS	ANNUALIZED CR	ENACTED	REQUEST
Highway Safety Programs	\$ 57,374	\$ 57,374	\$ 56,631	\$ 63,121
Research and Analysis - NCSA	39,941	39,941	40,290	42,983
Administrative Expenses	51,685	51,685	55,179	49,196
TOTAL, HIGHWAY SAFETY RESEARCH & DEVELOPMENT (TF)	\$ 149,000	\$ 149,000	\$ 152,100	\$ 155,300

FTEs:

Direct Funded	160	175	175	174
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Note: Totals may not add due to rounding.

**HIGHWAY SAFETY RESEARCH AND DEVELOPMENT
OPERATIONS AND RESEARCH – TRUST FUND (TF)**

Program and Performance Statement

The FY 2020 budget request includes \$155.30 million for research and development activities to reduce highway fatalities, prevent injuries, and reduce the economic toll of motor vehicle crashes. Requested funding supports data collection and analysis, researching highway safety issues, and developing effective countermeasures. The data collection, data system development, and analytical work performed by the National Center for Statistics and Analysis (NCSA) support a full range of vehicle safety, highway and behavioral safety research, and are extensively utilized by NHTSA and many other safety organizations worldwide. As a result, NCSA is funded from both Highway Safety and Vehicle Safety. Behavioral program research and development covers a comprehensive range of issues affecting roadway users including vehicle occupants, pedestrians, bicyclists, as well as emergency medical services.

**FY 2020 – Highway Safety Research and Development
\$155,300,000**

(\$000)			
Program	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Highway Safety Programs	\$57,374	\$56,631	\$63,121
National Center for Statistics and Analysis (NCSA)	\$39,941	\$40,290	\$42,983
Highway Safety R&D Administrative Expenses	51,685	55,179	49,196
Account Total	\$149,000	\$152,100	\$155,300

Highway Safety Programs
\$63,121,000

NHTSA's highway safety programs support the Department's safety efforts through behavioral research, demonstrations, technical assistance, and national leadership activities emphasizing: alcohol and drug countermeasures; occupant protection; distraction; traffic law enforcement; emergency medical and trauma care systems; driver licensing; State and community evaluations; motorcycle rider safety; pedestrian and bicyclist safety; pupil transportation; and young and older driver safety programs. NHTSA coordinates with numerous Federal partners, State and local governments, the private sector, universities, research units, and safety associations and organizations to leverage resources and enhance the reach of safety programs and messages. Research and countermeasure development increase the return on investment from the Highway Traffic Safety Grant Program.

Within its request, NHTSA proposes an increase of \$3.48 million to address the increasing concern about drug-impaired driving – as exacerbated by the enactment of State laws allowing medical and recreational marijuana use and the increasing number of controlled substances, prescription drugs, and over-the-counter medications that have the potential to impair driving. This new initiative is detailed in three sections of the budget: Highway Safety Research, Impaired Driving, and Drug-Impaired Driving.

Specific behavioral research activities traditionally funded under the Vehicle Safety program are allowable under the S. 403 Highway Safety Research and Development program. In FY 2020, the Highway Safety Research program proposes to fund \$3 million for Automated Driving Systems, \$2 million for Advanced Driver Assistance Systems, and \$2 million for improving consumer responses to safety. This funding will allow NHTSA to conduct behavioral research activities and maximize the effectiveness of our recall efforts.

National Center for Statistics and Analysis (NCSA)
\$42,983,000

The program activities of the National Center for Statistics and Analysis (NCSA) supports the Department of Transportation's safety mission and are funded through the Highway Safety Research and Development and Vehicle Safety accounts. Data collection and analytical work performed by the NCSA support agency rulemaking activities, vehicle safety and behavioral research, and countermeasure development. It is also the basis for evaluation of roadway safety and commercial vehicle safety analyses funded and conducted by the Federal Highway Administration (FHWA) and Federal Motor Carrier Safety Administration (FMCSA).

Detailed Justification for Highway Safety Programs

FY 2020 – HIGHWAY SAFETY PROGRAMS - SUB-PROGRAM BUDGET REQUEST

(\$000)				
Highway Safety Programs Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST	Change FY 2019 - FY 2020
Impaired Driving	\$11,609	\$11,609	\$10,509	(\$1,100)
Drug Impaired Driving	\$1,521	\$1,521	\$5,000	\$3,479
Safety Countermeasures	\$4,697	\$4,697	\$4,197	(\$500)
National Occupant Protection	\$10,350	\$10,350	\$8,950	(\$1,400)
Enforcement and Justice Services	\$5,666	\$4,541	\$5,541	\$1,000
Emergency Medical Services	\$2,621	\$2,621	\$2,621	\$0
Enhanced 9-1-1/ National 9-1-1 Office	\$2,811	\$2,811	\$2,811	\$0
National Emergency Medical Services Information System	\$1,533	\$2,033	\$2,033	\$0
Driver Licensing	\$1,021	\$1,021	\$521	(\$500)
Highway Safety Research ¹	\$11,748	\$11,748	\$14,948	\$3,200
Behavioral International Program	\$102	\$102	\$102	\$0
Defects Investigation - Recall Management (TF)	\$0	\$0	\$2,000	\$2,000
National Driver Register	\$3,695	\$3,577	\$3,887	\$310
Highway Safety Programs Total	\$57,374	\$56,631	\$63,121	\$6,489

¹ Highway Safety Research budget request includes \$2.00 million for Advanced Driver Assistance Systems (ADAS) Driver Adaptation Research and \$3.00 million for Automated Driving Systems (ADS) Human Factors Research.

In FY 2020, NHTSA requests \$63.12 million for Highway Safety programs. Funding at this level will allow the agency to continue its Drug-Impaired Driving Initiative launched in FY 2019, refine its core programs, and develop other critical new resources including:

Impaired Driving

- Continue support for prosecution of impaired drivers through the resource center for prosecutors that provides immediate technical assistance and in-person training.
- Provide technical assistance to States on the use of the Drug-Impaired Driving Criminal Justice System Evaluation Tool.
- Develop and update judicial education courses to emphasize the technical aspects of drug testing, toxicology and Drug Recognition Expert (DRE) testimony.
- Increase training for prosecutors on successfully conducting drug-impaired driving prosecutions.

Drug-Impaired Driving

- Provide training and education to the law enforcement community on the identification, arrest, and adjudication of drug-impaired drivers.
- Maintain and improve a national database on evaluations of drug use by drivers performed by DREs for evaluating the extent of drug-impaired driving.

Safety Countermeasures

- Continue a demonstration project to enhance State driver licensing medical review processes and policies, and other elements recommended in the Highway Safety Program Guideline [No. 13 Older Driver Safety](#).
- Expand partnerships with organizations for delivery of continuing education to medical and healthcare providers for counseling patients on fitness for safe driving.
- Continue support for operation of a Driver Licensing and Medical Fitness-to-Drive online training and technical assistance resource for State driver's license administrations and highway safety offices.
- Conduct one or more demonstration programs to prevent impaired operation of motorcycles, building on effective strategies identified in previous demonstration programs.
- Continue support for operation of a web-based pedestrian and bicyclist safety resource center in collaboration with FHWA to assist States and communities with planning, implementing, and evaluating evidence-based pedestrian and bicyclist safety programs.

Occupant Protection

- Continue to promote the annual *Click It or Ticket* campaign.
- Develop strategies for law enforcement to address fatalities in States with secondary seat belt laws, States with primary enforcement laws and low belt use rates, and in suburban and rural areas where a significant portion of motor vehicle fatalities are not restrained.
- Promote strategies for sustained enforcement of seat belt laws throughout the year.
- Continue to pilot test and promote strategies that appeal to prevalent attitudes, experiences, and values of communities in low seat belt use States.
- Identify populations and communities at increased risk for unrestrained fatalities and injuries and develop countermeasure strategies.

Enforcement and Justice Services

- Engage the law enforcement community to promote traffic law enforcement as a core value in planning and deploying resources.
- Support law enforcement efforts to stop and take an enforcement action on drivers who violate motor vehicle laws and remove alcohol- and drug-impaired drivers from the road in an environment of legalized recreational use of marijuana and the Nation's opioid epidemic.
- Continue to build capacity in States for implementing Data-Driven Approaches to Crime and Traffic Safety (DDACTS) and the nationwide network of Law Enforcement Liaisons (LELs).
- Implement the law enforcement focused objectives outlined in the Departmental Speed Program Plan.
- Increase the safety of law enforcement officers working in dangerous environments, through training and education.
- Manage the implementation of the racial profiling grant program as authorized under the Fixing America's Surface Transportation (FAST) Act (P.L. 114-94).

Emergency Medical Services (EMS)

- Market the EMS Agenda 2050 and its implementation plan.
- Support the Federal Interagency Committee on EMS (FICEMS) and the National EMS Advisory Council (NEMSAC).
- Respond to recommendations from NEMSAC.
- Assist States with implementation of the 2018 National EMS Scope of Practice Model and 2020 National EMS Education Standards.
- Identify effective interventions for improving mental health and wellness for EMS providers.
- Revise and initiate national dissemination of the National Guidelines for the Field Triage of Injured Patients to improve health outcomes of people who are injured in transportation-related crashes (e.g., drug-impaired drivers) and other injury mechanisms.

National 911 Program

- Comply with the statutory program requirement to collect and create resources for State and local 911 agencies for their conversion to Next Generation 911 and comprehensive 911 system implementation.
- Administer a grant program to improve the function of 911 Public Safety Answering Points (PSAPs).
- Participate in activities to improve the technology and operation of federally operated PSAPs (e.g., National Park Service, Department of Defense) and integrate federally operated PSAPs with those operated by State and local jurisdictions.
- Sustain operation of the National 911 Profile Database and activities that enable collection of State 911 data to measure National progress towards full implementation of NG911.
- Create tools to facilitate the assessment of local and State 911 systems, based in the Information Sharing Environment model established by the Office of the Director of National Intelligence.
- Undertake research to understand, quantify, and validate the role of 911 in addressing emergencies created by substance abuse (e.g., alcohol- and drug-impaired driving and opioid abuse).

National EMS Information System (NEMSIS)

- Assist all 56 U.S. States and Territories which contribute to the Version 3 Data Standard National EMS Database and allows agencies and States to access EMS provider performance data.
- Generate at least four new national reports that provide a descriptive analysis of the national EMS system.
- Publish at least two public information dashboards, updated weekly, visualizing the EMS response to traffic crashes, alcohol- and drug-impairment indicators, and quality of collected data.
- Publish a NEMSIS annual report providing descriptive national data for providers, policymakers, and NEMSAC.
- Ensure the NEMSIS Technical Assistance Center (TAC) maintains Federal Information Security Management Act (FISMA) compliance.

Driver Licensing

- Provide national leadership and assistance to States to ensure that drivers are properly trained, evaluated, and have a single valid license.
- Assist States in developing licensing systems for novice drivers that include driver education, meeting minimum national standards, and Graduated Driver Licensing (GDL) laws.
- Provide States with policy, guidelines, and recommendations for accommodating vehicles with Automated Driving Systems, specifically regarding driver licensing, driver testing, and vehicle registration.

Highway Safety Research

- Expand efforts to understand the prevalence of marijuana and other drugs among drivers, the effects of impairment by marijuana and other drugs on driving performance, the crash risk associated with drugs and driving, and to support the development and evaluation of effective strategies to reduce drug-impaired driving.
- Conduct a safety-critical study on the human driver's readiness to resume control and the system's ability to communicate with a driver in a vehicle equipped with Automated Driving Systems (ADS) technologies.
- Assess the impacts of advanced technologies on driver behavior as vehicles become increasingly automated.
- Continue research to monitor the prevalence and crash risk of alcohol and driving and to support the development and evaluation of effective strategies to reduce alcohol-impaired driving.
- Continue to conduct and publish nationally representative surveys of traffic-safety attitudes, awareness, and self-reported behavior. These surveys include psychological and psychosocial factors related to seat belt use, the awareness and availability of child passenger safety information resources among caregivers, alcohol and drug use while driving and motorcycling, and drowsy driving.
- Continue motorcycle safety research that focuses on problem identification, classification of high risk groups, and development of strategies to decrease crashes and resulting injuries.
- Continue a study to estimate the vehicle miles traveled by motorcyclists based on data from States that collect mileage information during annual inspections.
- Continue pedestrian and bicycle safety research that focuses on problem identification, classification of high risk groups, and development of strategies to decrease non-motorist injuries, including a study of the impact of lowering speed limits and a study of exposure measures.
- Continue research on strategies to increase the use of seat belts in all seating positions, always including an evaluation of the effectiveness of State rear seat belt laws.
- Continue research on strategies to increase the use of child restraint systems and to aid parents and caregivers in selecting the appropriate Child Restraint System.
- Release the results of an observational study of correct and incorrect child restraint system installation among caregivers.
- Continue research of strategies to identify risky older drivers, as well as risky drivers with medical conditions.

- Continue studies of how older adults interact with in-vehicle technologies and the relationship between older adults' physical fitness and their driving performance.
- Continue research to improve young driver safety including analysis of factors associated with teen crashes to inform driver education and novice license requirements.
- Continue research to decrease the incidence of drowsy driving and fatigue, including a simulator study to assess the effectiveness of drowsiness detection and alerting systems and an evaluation of training and scheduling tools for reducing fatigue and drowsy driving among EMS personnel.

Defects Investigation – Recall Management

- Promote greater awareness of recalls through comprehensive outreach efforts.
- Update requirements to incorporate new mechanisms for manufacturers to inform consumers of open recalls to include electronic notification (example: text messaging).
- Implement programs to research effectiveness of strategies to improve recall completion rates.
- Review and evaluate the execution of manufacturers' recall campaigns to improve customer response rates and outcomes.

Behavioral International Program

- Expand global road safety leadership utilizing forums including the United Nations Road Safety Collaboration and the United Nations Economic Commission of Europe Global Forum for Road Safety.
- Support Departmental priorities including the future deployment of ADS through international policy forums.

HIGHWAY SAFETY PROGRAMS
Impaired Driving

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Impaired Driving	\$11,609	\$10,509

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

In FY 2020, NHTSA requests \$10.51 million to support Impaired Driving programs. This program directly supports the Department’s safety priorities by developing and demonstrating effective countermeasures to reduce the occurrence of alcohol- and drug-impaired driving, which accounts for a significant portion of the death, injury, and costs resulting from traffic crashes. Impaired driving is a complex issue, and NHTSA addresses it by developing a range of countermeasures that:

- Prevent impaired driving among potential offenders;
- Deter recidivism among offenders; and
- Closely monitor high-risk individuals (e.g., repeat offenders and high Blood Alcohol Concentration (BAC) offenders).

While many activities within the Impaired Driving Program address both drug- and alcohol-impaired driving, the program directly contributes to the Drug-Impaired Driving Initiative by:

- Providing technical assistance to States on the use of the Drug-Impaired Driving Criminal Justice System Evaluation Tool;
- Developing and updating judicial education courses to emphasize the technical aspects of drug testing, toxicology, and Drug Recognition Expert (DRE) testimony;
- Continuing to support prosecution of impaired drivers through the resource center for prosecutors that provides immediate technical assistance and in-person training opportunities;
- Increasing training for prosecutors on successfully conducting drug-impaired driving prosecutions; and
- Expanding the national drug-impaired driving campaign to address illegal, prescription, and over-the-counter drugs.

In addition, the program will conduct the following activities that have a broader effect on driver impairment:

- Continuing the demonstration project measuring the effectiveness of community engagement to support increased impaired-driving enforcement. This will assist law enforcement agencies in moving towards a sustained enforcement model.

- Continuing to provide, upon request, topic-focused impaired driving technical assistance teams to assist States in strengthening their impaired driving programs.
- Developing new impaired driving modules for the Training Library of courses on impaired driving programs for State and community highway safety specialists on topics related to drug-impaired driving, offender assessment and treatment, and prosecution and adjudication of alcohol- and drug-impaired driving offenders.
- Working closely with NHTSA's Office of Vehicle Safety Research to increase the driving public's knowledge of Driver Alcohol Detection System for Safety (DADSS) in-vehicle technologies and the capability of passively detecting alcohol-impaired drivers and preventing them from driving.
- Continuing to provide technical assistance to States to strengthen and expand their ignition interlock program, including increasing ignition interlocks use and offender monitoring.
- Supporting Law Enforcement Liaisons (LELs), Traffic Safety Resource Prosecutors, and Judicial Outreach Liaisons to actively promote the use of high visibility enforcement, ignition interlocks, Driving While Intoxicated (DWI) courts, and proven sentencing and supervision practices, as part of a comprehensive approach to reducing alcohol- and drug-impaired driving.

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

The benefit the American public receives through the Impaired Driving Program is a reduction in motor vehicle crashes and associated deaths and injuries. Driver impairment by both drugs and alcohol is a serious public health issue. In 2014, the most recent National Roadside Survey of Alcohol and Drug Use by Drivers found that 20 percent of weekend nighttime drivers tested positive for the presence of drugs. Marijuana was found in 12.6 percent of drivers, a 48 percent increase since the prior survey in 2007.

In 2017, 10,874 people died in alcohol-impaired driving crashes, a 1.1 percent decrease from 2016.¹⁷ Over one-fourth of traffic fatalities each year occur in crashes that involve an alcohol-impaired driver (in which a driver or motorcycle rider had a Blood Alcohol Concentration (BAC) of .08 or greater.)¹⁸ Alcohol-impaired driving fatalities decreased in 2017, and the general trend of alcohol-impaired driving fatalities has declined over the past decade.

Over the past 40 years, a large body of evidence has demonstrated the effectiveness of impaired driving programs in reducing associated crashes, injuries, fatalities, and/or recidivism. For example, high visibility enforcement of impaired driving laws has been shown to reduce alcohol-related crashes by as much as 20 percent, and the use of ignition interlocks and referral of offenders to DWI courts have been shown to reduce recidivism.

¹⁷ 2017 Fatal Motor Vehicle Crashes: Overview DOT HS 812 603.

¹⁸ FARS 2017. National Highway Traffic Safety Administration.

HIGHWAY SAFETY PROGRAMS
Drug-Impaired Driving

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Drug-Impaired Driving	\$1,521	\$5,000

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

Due to the growing safety problem from driver drug use, including the widespread use of both licit and illicit drugs, especially opioids have the potential to impair driving contributes to this concern. Furthermore, the enactment of State laws allowing medical and recreational marijuana use, and the number of controlled substances, prescription drugs, and over-the-counter medications have the potential to impair driving.

In FY 2020, NHTSA requests \$5.00 million for the Drug-Impaired Driving Program. This is a \$3.48 million increase from the FY 2019 requested level and is necessary to support the NHTSA’s Drug-Impaired Driving Initiative launched January 25, 2018.

The Drug-Impaired Driving Program directly supports the Department’s safety priorities by developing and demonstrating effective countermeasures for reducing the incidence of drug-impaired driving. The program focus is to: 1) understand the relationship between drug use and crash risk; and 2) employ countermeasures such as stronger laws, training for law enforcement, prosecutors, judges and other criminal justice professionals, and public education.

Drug-impairment presents new challenges for the entire criminal justice community, therefore the agency’s Standardized Field Sobriety Testing (SFST), Advanced Roadside Impaired Driving Enforcement (ARIDE) and Drug Recognition Expert (DRE) programs remain crucially important resources in combating drug-impaired driving.

The increased level of funding requested for FY 2020 supports the Drug-Impaired Driving Initiative through the following efforts:

- Delivering training and educational materials designed for law enforcement, other criminal justice professionals, and community stakeholders on drugs that can contribute to impaired driving;
- Delivering updated training to law enforcement and strategically expanding the numbers of law enforcement officers receiving SFST, ARIDE, and DRE training;
- Providing guidance to help States ensure that their drug-impaired driving system balances capacity to make arrests with corresponding capabilities in toxicology and prosecution;

- Supporting a national drug-impaired driving communications campaign in conjunction with High Visibility Enforcement (HVE) mobilizations;
- Increasing the number of Law Enforcement Liaisons (LELs) and improving their outreach skills to improve information sharing with law enforcement about drug-impaired driving issues and initiatives;
- Maintaining and improving a national database on DRE-performed evaluations of drug use by drivers that gives an indication of the extent of drug-impaired driving and changes over time;
- Conducting research to support law enforcement screening of drug-impaired drivers at the roadside and developing tools and equipment (e.g., oral fluid tests) to carry out those processes;
- Exploring the feasibility of standardized tests to detect marijuana and other drug impairment for use by law enforcement;
- Improving the ability for toxicologists to identify drugs in human samples given the prevalence of designer and hybrid drug chemistry; and
- Evaluating promising countermeasures to reduce drug-impaired driving in selected States.

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

Drug-impairment can seriously affect driving performance and increase crash risk. Experience with alcohol-impaired driving over the past several decades has shown that such behaviors are controllable through strategic countermeasures, including public awareness, strong laws, and effective criminal justice systems. Developing and implementing a strong network of drug-impaired driving countermeasures across the Nation could save thousands of lives and significantly reduce associated societal and economic costs.

HIGHWAY SAFETY PROGRAMS
Safety Countermeasures

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Safety Countermeasures	\$4,697	\$4,197

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

The Safety Countermeasures Program focuses on five broad areas of behavioral safety: pedestrians, bicyclists, motorcyclists, pupil transportation, and older drivers. In total, these five road user types account for more than 40 percent of all traffic fatalities.¹⁹ The program develops and evaluates an extensive range of behavioral safety countermeasures to address the safety of these road users.

In FY 2020, NHTSA requests \$4.20 million for the Safety Countermeasures program. Research has shown that key interventions such as pedestrian safety law enforcement, pedestrian safety zones, and motorcycle helmet use are effective in reducing deaths and serious injuries. For older drivers, programs that encourage referrals of potentially unsafe older drivers for re-examination by physicians and law enforcement have proven effective in reducing crash risks. Specific evaluations of the Safety Countermeasures Program can be found at:

- Pedestrians: <https://www.nhtsa.gov/road-safety/pedestrian-safety>
- Bicycles: <https://www.nhtsa.gov/road-safety/bicyclists>
- Motorcycles: <https://www.nhtsa.gov/road-safety/motorcycles>
- School Buses (pupil transportation): <https://www.nhtsa.gov/road-safety/school-buses>
- Older drivers: <https://www.nhtsa.gov/road-safety/older-drivers>

The Safety Countermeasures Program will conduct a range of initiatives to reduce traffic fatalities among pedestrians, bicyclists, motorcyclists, and older people. Specific efforts will include:

Pedestrian and Bicyclists

- Continuing efforts to bring research and demonstration projects to State and local communities;
- Continuing a pedestrian and bicyclist crash causation study;
- Promoting adoption of the revised Highway Safety Program Guidelines [No. 13 Older Driver Safety](#) and [No. 14 Pedestrian and Bicycle Safety](#);
- Facilitating State pedestrian and bicycle safety program technical assessments;
- Implementing noteworthy practices developed through the demographic analysis of alcohol-impaired pedestrians killed in motor vehicle crashes; and
- Providing effective training to law enforcement on pedestrian and bicycle safety enforcement, and on the design and deployment of effective pedestrian and bicycle safety education.

¹⁹ FARS 2017. National Highway Traffic Safety Administration

Motorcyclists

- Disseminating noteworthy practices to all States on motorcycle helmet uses for older drivers and for those States without all-rider motorcycle helmet use laws;
- Facilitating State motorcycle safety program technical assessments; and
- Conducting assessments of motorcycle training against the National Standards.

Pupil Transportation

- Conducting research on State and local decisions to implement requirements for seat belt use on school buses, and impacts resulting from seat belt use on school buses;
- Disseminating noteworthy practices gleaned from the analysis of State crash data involving school transportation-related vehicles; and
- Developing training materials for law enforcement and communications materials for communities to reduce the incidence of illegal passing of stopped school buses.

Older Drivers

- Promoting the use of safety tools, including on-line resources, by family members, medical practitioners, and law enforcement to evaluate older driver skills and fitness for driving;
- Supporting the Clearinghouse for Older Road User Safety (ChORUS, see <https://www.roadsafeseniors.org>); and
- Promoting use of on-line instructional materials for medical professionals to measure driving skill abilities for older drivers and to use occupational training methods to restore skills to safe levels.

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

Pedestrian deaths decreased by 1.7 percent in 2017, the first decrease since 2003, and bicyclist fatalities decreased by 8.1 percent, the first decrease since 2014. Pedestrians accounted for 16 percent of the total fatalities in 2017. Pedestrian and bicyclist fatalities can be reduced through behavioral safety countermeasures including education and law enforcement interventions.

In 2017, there were 5,172 motorcyclists killed—a 3.1-percent increase from the 5,337 motorcyclists killed in 2016. Despite representing 3 percent of registered vehicles, motorcyclists accounted for 14 percent of all traffic fatalities and 17 percent of all occupant (driver and passenger) fatalities. Forty-three percent of motorcycle riders who died in single vehicle crashes in 2017 were alcohol-impaired. Motorcyclist fatalities could be substantially reduced by improving critical safety behaviors such as reducing speeding and impaired riding, and increasing DOT-compliant motorcycle helmet use.²⁰ Motorcyclist fatalities have increased from a record low of 2,116 in 1997 to 5,172 in 2017.²¹ In 2017, 32 percent of all motorcycle riders involved in fatal crashes were speeding, compared to 18 percent for passenger car drivers, 14 percent of light-truck drivers, and 7 percent for large-truck drivers.²²

²⁰ FARS2017. National Highway Traffic Safety Administration.

²¹ FARS 1997 and 2017. National Highway Traffic Safety Administration.

²² FARS 2017. National Highway Traffic Safety Administration.

In 2017, 6,784 people 65 and older (older drivers) were killed in motor vehicle traffic crashes, representing 18 percent of all traffic fatalities.²³ According to the latest data available, older drivers made up 19 percent of all licensed drivers in 2017. Older drivers have multiple vulnerabilities affecting safe driving that can be improved through counseling, family interventions and driver licensing controls.

Between 2008 and 2017, there were 1,241 people of all ages killed in school transportation-related crashes—an average of 124 fatalities per year.²⁴ Most pupil transportation-related fatalities (70 %) were occupants of other vehicles involved in the crash. Non-occupants (pedestrians, bicyclists, etc.) accounted for 20 percent of these fatalities and 9 percent were occupants of a school transportation vehicle. School buses continue to be the safest mode of transportation for getting children back and forth to school. However, risks could be further reduced through seat belt use, improved safety outside of the bus, and other measures.

Continued investment in highway safety programs has proven to reduce motor vehicle crashes and resulting injuries. Reduced crashes and injuries contribute to lives saved and economic vitality by preventing unexpected costs associated with property damage and medical services. Quality of life is also enhanced. Increases in safe non-motorized transportation also contribute to improvement in the environment and individual health.

²³ FARS 2017. National Highway Traffic Safety Administration.

²⁴ FARS 2008 and 2017. National Highway Traffic Safety Administration.

HIGHWAY SAFETY PROGRAMS
Occupant Protection

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
National Occupant Protection	\$10,350	\$8,950

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

The National Occupant Protection program utilizes a range of approaches to reduce highway fatalities by increasing the use of age-appropriate occupant restraints. The agency deploys programs, projects, and technical assistance including: support for the enactment of primary seat belt laws, support for high visibility and sustained enforcement, demonstration projects that test strategies to increase seat belt and child restraint use among high-risk populations in rural communities, education and awareness resources that promote correct restraint use for children and the importance of seat belt use at night and in the back seat, promotion of media campaigns, and evaluating the impact of vehicle technologies to increase seat belt use.

The agency conducts occupant protection research, develops program guidelines, and produces National *Click It or Ticket* (CIOT) mobilization and Child Passenger Safety Week planners, and other resources to help State and local communities increase seat belt, child safety seat, and booster seat use. These resources are available at <https://one.nhtsa.gov/Driving-Safety/Occupant-Protection>.

Seat belt use in 2017 was 89.7 percent nationally according to the National Occupant Protection Use Survey; this use rate remained statistically unchanged from the previous year. Since 2000, seat belt use has shown an increasing trend; however, belt use in serious crashes remains relatively low. Wearing a seat belt is the single most effective means of saving lives and reducing injuries in crashes. In 2017, of the 23,551 passenger vehicle occupants killed in crashes, 10,076 were known to be unrestrained. Considering only occupants where restraint use was known, 47 percent were unrestrained at the time of the fatal crash.²⁵ Seat belts saved 14,955 lives in 2017.²⁶ An additional 2,549 lives would have been saved in 2017 if all unrestrained passenger vehicle occupants five and older involved in fatal crashes had worn their seat belts. A recent NHTSA analysis of the effectiveness of Federal Motor Vehicle Safety Standards showed that seat belts accounted for about 54 percent of the lives saved from 1960-2012, more than any other Federal Motor Vehicle Safety Standard.

In FY 2020, NHTSA requests \$8.95 million for the National Occupant Protection Program to support the following activities:

²⁵ FARS 2017. National Highway Traffic Safety Administration.

²⁶ FARS 2017. National Highway Traffic Safety Administration.

- Promoting the annual CIOT campaign and the cross-border law enforcement effort, Border-to-Border, to highlight the CIOT launch and complement the mobilization efforts across the nation;
- Developing strategies for law enforcement to increase belt use in States with secondary seat belt laws, States with primary enforcement laws and low belt use rates, and in suburban and rural areas where a significant portion of motor vehicle fatalities are not restrained;
- Promoting strategies for sustained enforcement of seat belt laws throughout the year;
- Continuing to use the information gleaned from the law enforcement working groups convened through the Enforcement and Justice Services Division, as well as seat belt enforcement demonstration and technical assistance projects, to identify challenges and test potential solutions and new approaches for making traffic enforcement, especially sustained seat belt enforcement, a law enforcement priority;
- Continuing the demonstration project on increasing community acceptance of seat belt enforcement to increase seat belt use;
- Promoting lessons learned from completed projects on innovative and sustained enforcement strategies for reaching seat belt non-users;
- Collaborating with employers and partners in the public health, medical, and law enforcement communities to test strategies to persuade residents of low seat belt use States and in rural areas to use seat belts by appealing to common attitudes, experiences and values, especially about the importance of personal responsibility;
- Continuing the pilot test to provide on-site planning and assistance to lower performing States to improve their occupant protection program and implement recommendations from the occupant protection program assessments;
- Analyzing existing data, identifying and testing strategies to address disparities in adult and child passenger safety in minority communities and building capacity and infrastructure to support adult and child passenger safety efforts for economically disadvantaged populations;
- Continuing efforts to educate parents and caregivers about the correct choice and use of car seats and booster seats for children, emphasizing the importance of registering car seats and booster seats, and increasing outreach to less advantaged communities; and
- Working with the Safe States Alliance to identify protective factors for seat belt use and providing training and technical assistance to highway safety and health offices on programmatic strategies emphasizing protective factors.

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

Seat belts are among the most effective vehicle safety technologies. Wearing a seat belt has multiple benefits, including keeping occupants inside the vehicle and preventing occupants from becoming projectiles inside of the vehicle and from hurting other occupants. Seat belt use can improve an occupant's chance of surviving a potentially fatal crash by 44 to 73 percent, depending on the vehicle type and seating position. Lap/shoulder belts reduce the risk of fatal injury to front-seat passenger vehicle occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent.

Between 1975 and 2017, seat belts have saved the lives of over 374,000 passenger vehicle occupants age 5 and older.²⁷ Over this same period, an estimated 11,606 lives were saved by child restraints. These numbers do not reflect the injuries that have been prevented or mitigated using seat belts and child restraints. The non-use of seat belts cost the Nation \$10.4 billion in 2010.²⁸

²⁷ National Center for Statistics and Analysis, National Highway Traffic Safety Administration.

²⁸ Blincoe, L. J., Miller, T. R., Zaloshnja, E., & Lawrence, B. A. (2015, May). The economic and societal impact of motor vehicle crashes, 2010 (Revised) (Report No. DOT HS 812 013). Washington, DC: National Highway Traffic Safety Administration.

HIGHWAY SAFETY PROGRAMS
Enforcement and Justice Services

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Enforcement and Justice Services	\$4,541	\$5,541

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

The Enforcement and Justice Services (EJS) program supports the Departmental safety priority by engaging the law enforcement community in carrying out the High Visibility Enforcement (HVE) model. HVE is a particularly effective countermeasure for reducing fatalities, serious injuries, and the economic impacts of road traffic crashes. EJS works with a broad range of stakeholders to enhance the effectiveness of the criminal justice system in the detection, apprehension, and punishment of violators of traffic safety laws and regulations.

NHTSA collaborates with the Department of Justice (DOJ) and other law enforcement partners to employ a comprehensive approach to improving traffic safety, including key initiatives such as alcohol- and drug-impaired driving enforcement, speed management, Data-Driven Approaches to Crime and Traffic Safety (DDACTS), and training and technical assistance to law enforcement, prosecutors, and judges. Working jointly with the States and communities, the agency has established a national network of Law Enforcement Liaisons (LELs) to further adoption of highway safety initiatives by law enforcement agencies nationwide. NHTSA provides a multitude of resources to improve the effectiveness of traffic safety laws: <https://one.nhtsa.gov/Driving-Safety/Enforcement-&-Justice-Services>.

In FY 2020, NHTSA requests \$5.54 million for the EJS program. Funding at the requested level is necessary to sustain and support effective participation of law enforcement, prosecutors, and judges in priority agency behavioral programs. Specific program activities for FY 2020 include:

- Mobilizing a network of LELs to promote NHTSA priority programs and provide ongoing technical assistance at the community level;
- Continued development of tools to educate law enforcement on the advantages of strong traffic law enforcement programs and the need to include traffic enforcement as a core value in planning and deploying resources;
- Developing new tools designed to facilitate the adoption of best practices by law enforcement and criminal justice professionals;
- Developing traffic-related data tools through work with the DOJ to facilitate resource sharing through a network of Fusion Centers and the Regional Information Sharing Systems (RISS);

- Revising Standardized Field Sobriety Test (SFST), Advanced Roadside Impaired Driving Enforcement (ARIDE), and Drug Recognition Expert (DRE) courses; and
- Implementing the Section 1906 grant program for the collection, maintenance, and evaluation of racial data in traffic stops.

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

Traffic law enforcement strategies such as High Visibility Enforcement (HVE) have been repeatedly evaluated and determined to be effective in modifying driver behavior and improving safety performance. Active participation of criminal justice professionals is crucial to the success of the agency's key behavioral safety programs, including occupant protection, alcohol- and drug-impaired driving, distracted driving, and speeding initiatives. Traffic enforcement and adjudication are critical components of community public health and safety programs.

HIGHWAY SAFETY PROGRAMS
Emergency Medical Services

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Emergency Medical Services	\$2,621	\$2,621

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

The Office of Emergency Medical Services (EMS) protects the health and safety of the American people by helping communities develop adaptable, innovative, and data-driven EMS systems, which improve health outcomes from motor vehicle crashes and other health emergencies. According to the Fatality Analysis Reporting System (FARS), 44 percent of all motor vehicle crash fatalities in 2017 occurred after the victim arrived at the hospital. After crashes occur, EMS systems remain the primary opportunity to reduce deaths and serious injuries from motor vehicle crashes.

The vision of the Office of EMS is innovative, reliable, and people-centered EMS systems that produce optimal outcomes from motor vehicles crashes and other health emergencies. The Office of EMS advances emergency medical services by collecting and analyzing critical data about EMS systems and patients, and by fostering collaboration among National, State, and local agencies and organizations engaged in guiding, improving, and integrating EMS nationwide.

The Office of EMS, staffed by EMS and highway safety experts, convenes stakeholders to unify the EMS community around a shared vision to improve patient care. The Office of EMS also fosters consensus around strategies to promote more reliable, adaptable and, innovative EMS systems and leads projects of national significance to accelerate improvements in our nation’s EMS systems.

NHTSA manages the statutorily created [National EMS Advisory Council \(NEMSAC\)](#), which provides advice to the Department of Transportation and to the [Federal Interagency Committee on Emergency Medical Services \(FICEMS\)](#). FICEMS is required by law to coordinate Federal EMS activities. NHTSA is mandated to provide administrative support to both FICEMS and NEMSAC. NHTSA also provides a variety of resources for Federal, State, and local EMS organizations at www.EMS.gov.

To ensure that EMS programs provide meaningful impact to the American people, the Office of EMS works closely with the NEMSAC, multiple national EMS organizations, and our Federal partners to identify strategic initiatives of national significance that will improve the efficiency and quality of emergency medical services around the country. The Office of EMS collaboratively develops and implements these strategies in partnership with the nation’s many EMS stakeholders.

Through NHTSA's leadership in developing and implementing the [*National EMS Education Agenda for the Future: A Systems Approach*](#), there has been considerable progress in moving the Nation toward a more uniform EMS education, National EMS Certification and accreditation of paramedic education programs which helps ensure a more consistent level of emergency medical care is available throughout the nation, including to people injured in motor vehicle crashes.

In FY 2020, NHTSA requests \$2.62 million for Emergency Medical Services program activities. The Office of EMS will continue activities to reduce death and disability from motor vehicle crashes and other health emergencies by providing national leadership and coordination to help implement adaptable, innovative and data-driven emergency medical services and 911 systems. The Office of EMS will accomplish this by:

- Revising and supporting implementation of the National EMS Model Clinical Guidelines;
- Analyzing NHTSA ambulance crash investigations information and FARS data to increase safety of patients, EMS personnel, and the general public when operating or riding in a ground ambulance;
- Continuing revision of the *National Guidelines for the Field Triage of Injured Patients*, which helps to ensure that trauma patients are taken to the right medical facility in the right amount of time;
- Providing technical assistance and support to State offices of emergency medical services in more uniform approaches to the development and regulation of EMS;
- Assisting national EMS organizations to develop best practices to unify the EMS community to improve patient care and safety;
- Supporting implementation of the National EMS Culture of Safety Strategy, the National EMS Workforce Agenda for the Future, and the EMS Education Agenda for the Future consistent with the recommendations of NEMSAC;
- Developing Evidence-based Guidelines for EMS personnel mental health and wellbeing.
- Providing staff and operational support for the Federal Interagency Committee on EMS (FICEMS) and the NEMSAC;
- Continuing coordination with Federal and national preparedness partners to strengthen the resilience of EMS and 911 systems at the local, State, and Federal levels and supporting related efforts of the National Security Council staff; and
- Promoting the role of EMS as an essential component of systems of trauma care and other time-critical medical conditions (e.g., cardiac and neurological emergencies) and improving the linkages between EMS and trauma data, as recommended by the National Academies of Science, Engineering, and Medicine (NASEM).

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

The NHTSA Office of EMS serves as the Federal lead agency supporting growth, refinement and evolution of prehospital emergency medical care and existing EMS systems throughout the country. EMS systems save lives of people injured in motor vehicle crashes by providing prompt and effective medical care when other safety countermeasures have failed. In addition to improving crash survival rates, early administration of medical treatment has been shown to reduce long-term

disability and to reduce health care costs. Consistent with recommendations developed by the NASEM, further evolution and integration of regional trauma systems will result in improved

patient care and survival from traumatic injuries. Adoption of “systems of care” models to other time-critical medical conditions will also improve care for and survival from those conditions. Providing improved training for our EMS personnel and equipping them with evidence-based treatment protocols will help ensure that Americans living in rural and urban areas all receive high-quality emergency medical care. Finally, community-based EMS systems are integral to building the Nation’s resilience by expanding and coordinating the daily capacity to provide structured surge care in response to emergencies from traffic crashes to natural and man-made disasters.

A well-performing, healthy EMS system is essential to highway traffic safety and to the health of the Nation. It provides the last prehospital opportunity to reduce fatalities and the medical consequences of injuries from motor vehicle crashes. This people-based emergency health system also responds to other traumatic and medical emergencies. Effective systems of emergency trauma care can improve survival from severe injuries by as much as 25 percent. Counties with coordinated systems for trauma care have been shown to have crash fatality rates as much as 50 percent lower than counties without trauma systems.

The Office of EMS leverages its investment by pursuing strategic national initiatives that are recommended by the NEMSAC and supported by the national EMS community. These investments, combined with the enthusiastic implementation of a dedicated national EMS community, help ensure success in generating sustainable national EMS system improvements.

HIGHWAY SAFETY PROGRAMS
National 911 Program

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Enhanced 9-1-1/National 9-1-1 Office	\$2,811	\$2,811

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

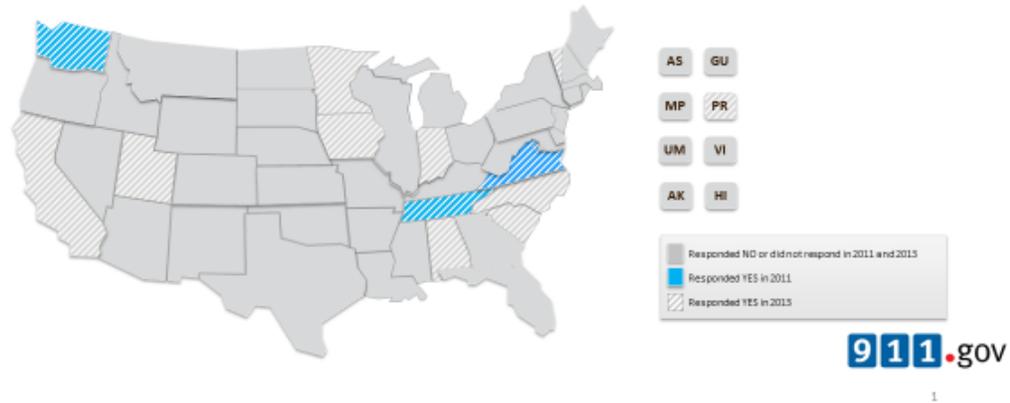
The National 911 program provides national leadership and coordination of comprehensive, data-driven, and evidence-based Next Generation (NG911) systems to reduce fatalities and minimize injuries from motor vehicle crashes and other injuries by administering the National 911 Program Office. The program was established by Congress in 2004 as a Federal point of coordination for activities among 911 stakeholders and to provide information that can be used by State and local 911 authorities to improve the 911 system. The office works toward achieving these goals through collaboration with Federal agencies, national organizations, private sector industry and 911 authorities at the State and local levels involved in 911 emergency communications. The program develops a variety of resources through active involvement with this 911 community. Products include tools that can be used to plan and implement the Nation in upgrading its obsolete 50-year-old infrastructure. The National 911 program is also responsible for administering a grant program specifically for the benefit of 911 Public Safety Answering Points (PSAPs) authorized by Section 6501 of the Jobs Act of 2012 (P.L. 112-96).

For over 50 years, Americans have relied on 911 as the single point of entry to call for emergency services. Congress formally established 911 as the National Emergency Number in 1999. It is estimated that there are over 240 million 911 calls each year, with an increasing number made by cellular and Voice over Internet Protocol (VoIP) telephones, as well as text messages.

The Nation’s 911 system is outdated and undergoing a major transition. Upgrading the obsolete infrastructure will transform over 6,000 independently operated 911 PSAPs into one, and interconnect over 6,000 components, which can receive, process, and share larger volumes of digital data and information. Without national coordination offered by the National 911 Program Office, the Nation’s 911 system is likely to remain outdated, fragmented, and in many communities, unable to provide 911 service to citizens using current forms of personal communication. While States play a major role in deploying updated 911 technologies, national coordination is essential in achieving a fully integrated 911 system nationwide.

States That Can Process 911 Calls using NG911 Infrastructure

▶ Difference between the percentage of the planned NG911 systems that are operational for NG911 call-taking from 2011 to 2013



In FY 2020, NHTSA requests \$2.81 million to sustain the operation of the National 911 program and support the following activities:

- Comply with the statutory program requirement to collect and create resources for State and local 911 agencies for their conversion to Next Generation 911 (NG911) and comprehensive 911 system implementation;
- Engage in Federal 911 activities designed to improve the technology and operation of federally operated PSAPs (e.g., National Park Service, Department of Defense) and integrating federally operated PSAPs with those operated by State and local jurisdictions;
- Continue the operation of the National 911 Profile Database and activities that enable submission of State 911 data to measure National progress towards full implementation of NG911;
- Create tools to facilitate the assessment of local and State 911 systems, based in the Information Sharing Environment model established by the Office of the Director of National Intelligence;
- Continue administering a grant program specifically for the benefit of 911 PSAPs; and
- Undertake research to understand, quantify, and validate the role of 911 in addressing emergencies created by substance abuse (e.g., drug-impaired driving and opioid abuse).

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

For almost 50 years, the 911 system has provided efficient, effective public access to emergency help for all types of emergencies. Every incident, large or small, starts with a call to the 911 system for help. Citizens also depend on the 911 system to maintain highway safety (e.g., reporting impaired drivers to law enforcement). While the 911 system has been a success, its infrastructure

is outdated, and an update to its technologies and operation is necessary if the public is to access 911 using current methods of personal communication.

An updated 911 infrastructure, Next Generation 911, will allow citizens to send text messages, video, photographs, and other data to 911, and the system will allow 911 to send this information to emergency responders, which is not possible now. The integration of 911 and emergency responder communication systems is essential to achieving seamless high-level information transmission.

Additionally, an updated 911 infrastructure will allow 911 PSAPs to transfer 911 calls to other PSAPs – important in cases of call overload or when a natural disaster damages 911 PSAPs – neither of which can be done today.

Further improvement of national coordination will facilitate consistency and uniformity among State and local 911 systems. Without this coordination, the Nation’s 911 system is likely to remain fragmented and full implementation of a national NG911 system will be significantly delayed. In addition, people will not be able to use advanced personal communication devices to call 911 in many communities. By fostering coordination and collaboration among Federal, State, and local 911 stakeholders, cost sharing and cost saving is much more likely to occur.

HIGHWAY SAFETY PROGRAMS
National Emergency Medical Services Information System

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
National EMS Info System (NEMSIS)	\$2,033	\$2,033

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

The National EMS Information System (NEMSIS) improves care for motor vehicle crash victims and other patients through the standardization, aggregation, and utilization of point-of-care Emergency Medical Services (EMS) data at a local, State, and National level. The goal is for every Emergency Medical Technician (EMT) and paramedic to collect consistent data on every patient encounter and for that record to be compiled with others to analyze and improve quality, benchmark EMS systems, conduct research, and describe the Nation’s EMS systems.

NEMSIS provides a comprehensive, standardized approach to collecting and using EMS patient care data at the local level and reporting portions of that data to the State and National levels. NEMSIS collects standardized prehospital patient care data that can be fully integrated with electronic health records (i.e., health information exchanges) and with traffic records systems to evaluate and document achievements and challenges related to improving safety. This capability will greatly improve quality of patient care analysis.

NEMSIS is a joint Federal, State, local, and private venture. NHTSA provides the overall coordination, data definitions and standards, and technical assistance. Local EMS agencies, both private and governmental, purchase commercial software based on the national data definitions and collect the patient-side data. State EMS offices manage State EMS data systems, including the aggregation of data from local EMS agencies, within their jurisdiction, and report a subset of that data to the National EMS Database. NHTSA manages the national repository of EMS records that are voluntarily collected by 49 U.S. States and Territories. For 2015 and 2016, the repository collected nearly 30 million de-identified EMS records per year, or more than 75 percent of all EMS activations in the Nation.

NHTSA funds the NEMSIS Technical Assistance Center (TAC) (<https://nemsis.org/>) to provide assistance to States for submission of data to the National EMS Database and for initial data analysis to assess EMS response and patient care. The TAC provides near real time EMS data on traffic crashes and other emergencies to NHTSA via interactive dashboards and a database query system. The TAC also assures vendor compliance with the national dataset.

Researchers currently publish approximately one peer-review paper monthly based on data from the National EMS Database. The National EMS Database differs from other NHTSA datasets as it is *person-based* instead of *crash-based* and includes medical information about the response to the

In FY 2020, NHTSA requests \$2.03 million for National Emergency Medical Services Information System program activities. This funding is necessary to support additional database maintenance and security requirements as well as increasing needs for data analysis. With the requested funding, NHTSA will be able to support NEMSIS by:

- Supporting and expanding the National EMS Database capabilities and handling increasing amounts of data;
- Continuing to support the NEMSIS Technical Assistance Center, which provides technical assistance and support to States and the National EMS community and assists with the expansion and operation of the National EMS Database;
- Ensuring that the NEMSIS program, the National EMS Database, and the NEMSIS Technical Assistance Center maintain compliance with the Federal Information Security Management Act (FISMA) and other Federal IT privacy and security requirements;
- Assisting all 56 States and territories with contributing NEMSIS Version 3 data to the National EMS Database;
- Integrating local NEMSIS-compliant electronic patient care reports with electronic health records and health information exchanges to provide for better patient care at the time of care and better linkage with patient outcomes;
- Assessing States' abilities to implement NEMSIS Version 3 data repositories; and
- Enhancing real time reporting of EMS responses to traffic crashes, including initial patient condition, indicators of alcohol- and drug-impairment, and patient outcomes.

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

The American public will benefit from the implementation and refinement of a National EMS Information System (NEMSIS) because the information will be used:

- By the local medical director and EMS providers to help evaluate and improve the care provided to patients, including those injured in motor vehicle crashes;
- By researchers to help improve the protocols that EMS providers use to guide the care provided to their patients;
- To help define performance measures and benchmarks that will help local and State officials improve EMS system performance, including those for response to motor vehicle crashes;
- To guide new educational opportunities for EMS providers that will improve the care they provide to patients; and
- To improve EMS systems preparation for disasters and major events and to enhance their resiliency.

NEMSIS is the critical link in providing a data-driven, evidence-based EMS system that collects information that is valuable in obtaining improved patient outcomes from traffic injuries. It is the only National EMS database system available. NEMSIS provides uniform information for EMS medical directors and administrators to improve the provision of emergency medical care to patients. The system also provides valuable prehospital information that will assist in the development of performance improvement tools and benchmarks for emergency medical services.

NEMSIS enhances research that is essential to support comprehensive, data-driven and evidence-based EMS and 911 systems. In the absence of NEMSIS, there would be no uniform method for collecting and analyzing EMS data to improve patient care, improve system performance, and enhance research.

NHTSA supports NEMSIS implementation and upgrades in States through the Section 405 State Traffic Safety Information Grants program. Furthermore, State Offices of EMS often participate in traffic record coordinating committees.

HIGHWAY SAFETY PROGRAMS
Driver Licensing

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Driver Licensing	\$1,021	\$521

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

The focus of the Driver Licensing program is to improve the safety impact of this function by providing resources, training, best practices, education, and outreach to the States. The program provides national leadership and assistance to States to ensure that drivers are properly trained, periodically evaluated, and have a single valid driver’s license. As part of this comprehensive program, NHTSA works with stakeholders, partners, and the public and private providers of driver’s education to develop and implement minimum National Standards for driver education and Graduated Driver Licensing (GDL) laws. The resources can be found at <https://www.nhtsa.gov/road-safety/teen-driving>.

As Automated Driving Systems (ADS) are developed and tested, the program also works with a wide range of partners and stakeholders to provide support to assist States with program and administrative guidance related to State responsibilities such as driver licensing, driver testing, and vehicle registration.

In FY 2020, NHTSA requests \$521 thousand for the Driver Licensing program. The program will focus resources on several key issues including:

- Working with key stakeholders in the promotion of driver education program national standards for the delivery of driver education programs at the State level;
- Assessing State adoption and implementation of national standards for driver education programs;
- Conducting driver education program assessments as requested by the States to assist them in strengthening the State Driver’s Education Program;
- Providing technical assistance to States that are adopting and implementing Driver Education Technical Assessment recommendations;
- Continuing demonstration projects to develop promising methods to educate parents, young drivers and law enforcement on the GDL program and the licensing restrictions of GDL;
- Providing States with guidance or recommendations to facilitate their accommodation of ADS operation, specifically in relation to driver licensing, driver testing, and vehicle registration; and
- Developing a guidance document that would assist States in addressing non-commercial driving issues with foreign countries.

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

Motor vehicle crashes are the leading cause of death for young drivers age 15 to 20 in the United States. Driver Education and licensing programs are critical for novice drivers, because they help young drivers gain experience in real-life situations and learn critical driving skills to aid in their decision making behind the wheel.

Key components of State driver licensing and driver education programs have proven effective, with several scientific evaluations showing GDL laws and driver education reduce young driver crashes. Further benefits will be realized by facilitating consistent State-to-State adoption of best practices for driver training and education and by determining the optimal approach for integrating driver education in an overall teen driver safety program. Each of these components is critical to a strong and effective driver education and licensing program.

HIGHWAY SAFETY PROGRAMS
Highway Safety Research

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Highway Safety Research (Includes Driver Alcohol Detection System for Safety)	\$11,748	\$14,948

Note: Budget request of \$14.95 million includes \$2.00 million for Advanced Driver Assistance Systems (ADAS) Driver Adaptation Research and \$3.00 million for Automated Driving Systems (ADS) Human Factors Research.

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

The primary objective of the Highway Safety Research program is to improve the return on investment from the Congressionally-mandated Highway Safety Grant program. Highway Safety Research directly supports the Departmental safety priority by providing the scientific basis for the development of effective behavioral countermeasures to reduce the occurrence and severity of traffic crashes.

Highway Safety Research also evaluates the relative effectiveness of programs to reduce fatalities and injuries on our highways, which is critical to assist States in allocating resources effectively and achieving national performance targets. In addition, Highway Safety Research monitors and measures both safe driving behaviors and unsafe driving behaviors as means to track progress and recognize emerging safety problems. Research, analysis, and evaluation program results are disseminated to the States for use in identifying problems and selecting effective countermeasures for implementation through the highway safety formula grant program (Section 402). NHTSA’s highway safety research studies can be found at <https://www.nhtsa.gov/behavioral-research>.

In FY 2020, NHTSA requests \$14.95 million for the Highway Safety Research program. This program area will support the following behavioral research activities:

Drug-Impaired Driving

- Initiating further research to develop a field test to detect drivers impaired by cannabis. If successful, this will include preparing training for law enforcement and field trials to demonstrate the efficacy of the field tests;
- Completing data collection in a large-scale study of the effects of drugs and alcohol on crash risk in serious injury and fatal crashes;
- Continuing a study on the impact of legalizing marijuana on the Driving While Intoxicated (DWI) system;
- Conducting a study to explore the feasibility of a field test device to identify drivers who are impaired by marijuana. If feasible, later stages of the study would involve laboratory and then field testing;

- Updating a State of the Knowledge report regarding drug-impaired driving for use by State Highway Safety Offices and other interested stakeholders; and
- Continuing a study of the role of marijuana use by drivers involved in crashes in which failures of executive function, cognition, and reaction time appeared to play a role.

Automated Driving Systems (ADS) Human Factors Research

With vehicles equipped with ADS, the expectations of human behavior and system behavior become intertwined and interdependent in their effects on safety. For example, safe control handoff between human drivers and ADS depends equally on the human driver's understanding of the system state, how it functions, and the human's readiness to resume control, and the system's ability to communicate its state and when it needs to the human driver to resume control. Keeping the human driver engaged, therefore, is critical for safety. Emerging driver engagement strategies, such as applying sufficient force to the steering wheel, or simply looking at the roadway ahead, and other engagement strategies have been studied in other fields such as rail, aviation, and space operations will be explored.

Driver engagement with the ADS is influenced by several issues, including the human-machine interface, the driver's experience and training with the system, and other situation-specific factors that affect behavioral responses. Historically, these types of research questions were featured in Vehicle Safety programs, but the changes in driving role for vehicles equipped with ADS mean that near term issues with driver engagement are predominantly behavioral.

Advanced Driver Assistance Systems (ADAS) Driver Adaptation Research

When examining the cooperation between human drivers and vehicles equipped with ADAS technologies, it is critical to measure behavioral changes that could occur beyond reactions to ADAS features and functioning. How drivers/users learn and adapt to vehicle technologies can lead to both positive and negative outcomes. For example, if a driver/user begins to take more risks because he or she believes (correctly or not) an advanced safety system will intervene in time, then that is a negative adaptation. Alternatively, if drivers begin to adopt similar headway distances as an adaptive cruise control system, then there may be a positive adaptation, leading to fewer critical events.

The adaptation to vehicle functioning and human-machine interface designs has implications for both driver behavior programs and vehicle safety. The focus for FY2020 will be on changes in human behavior over time.

Alcohol-Impaired Driving

- Refining Driver Alcohol Detection System for Safety (DADSS) impairment detection technology for production capability;
- Continuing an evaluation of DWI Courts to identify evidence-based and promising practices under the Ten Guiding Principles;²⁹ and

²⁹ *The Ten Guiding Principles of DWI Courts*. National Center for DWI Courts: Website: https://www.dwicourts.org/wp-content/uploads/Guiding_Principles_of_DWI_Court_0.pdf

- Releasing the result of a national survey on attitudes and behavior regarding drinking, drug use, and driving.

Occupant Protection

- Developing and evaluating countermeasures to reduce the part-time and increase full-time use of seat belts, building on information gained from a study of part-time or occasional seat belt use using naturalistic driving data;
- Developing and testing interventions to educate new parents on the appropriate selection and proper use of restraints based on the results of a study of the conditions surrounding correct and incorrect child restraint system installation;
- Developing and testing new programs to increase seat belt use utilizing recent research on psychological constructs and psychosocial factors related to non-seat belt use;
- Developing and testing new ways to overcome barriers to use among child caregivers utilizing findings of prior research that identified awareness and availability of child passenger safety information;
- Evaluating the effectiveness of State rear seat belt laws for increasing belt usage among rear seat occupants; and
- Conducting an exploratory analysis to determine community factors associated with seat belt use in fatal crashes.

Pedestrian and Bicycle Safety

- Producing a State of the Knowledge report regarding pedestrian and bicyclist safety research for use by State Highway Safety Offices and other interested stakeholders;
- Conducting a study that examines the impact of lowering speed limits and speed of travel on pedestrian and bicyclist safety; and
- Conducting longitudinal research, in collaboration with the Federal Highway Administration (FHWA), on the development and use of reliable, accurate, and repeatable measures of pedestrian and bicyclist exposure.

Motorcycle Safety

- Conducting a national representative survey regarding attitudes about motorcycling;
- Conducting a study to estimate the vehicle miles traveled by motorcyclists based on data from States that collect mileage information during annual vehicle safety inspections; and
- Conducting an analysis of the completed State of the Knowledge report, which examined motorcycle safety research for use by State Highway Safety Offices and other interested stakeholders, to determine gaps in the research and to identify future research needs.

Safe Speeds

- Releasing the results of a study using Strategic Highway Research Program 2 (SHRP-2) Naturalistic Driving Data to better understand questions related to speed-related behavior, including the relationship between speeding and crashes or near crashes;
- Continuing a naturalistic study that involves the instrumentation of roadways to identify real-world speed-related problems;
- Conducting a study that examines the impact of lowering speed limits and speed of travel on pedestrian and bicyclist safety; and

- Producing a report on the State of the Knowledge regarding speed research for use by State Highway Safety Offices and other interested stakeholders.

Older Drivers

- Continuing studies of how older adults interact with in-vehicle technologies (such as rearview cameras) to determine the degree to which these devices assist older drivers in driving more safely; and
- Studying the effectiveness of visual scanning training, which was designed to help older adults gather more visual information from the driving environment and reduce crash risk among older drivers.

Young and Novice Drivers

- Releasing the results of a survey of youth and novice drivers from several States regarding a variety of traffic safety issues; and
- Continuing analyses to identify factors associated with teen crashes to support the refinement of driver education programs.

Driver Fatigue and Drowsy Driving

- Conducting a national survey of drowsy driving knowledge, attitudes, and behaviors to inform the development of education and other countermeasures for reducing the incidence of drowsy driving; and
- Studying drowsiness detection and alerting systems to identify the types of alerts that are most effective.

Emergency Medical Services (EMS)

- Completing research into the use of training and scheduling tools to reduce the incidence of ambulance crashes and patient treatment errors in which fatigue played a role; and
- Releasing research assessing the status of emergency vehicle operator training throughout the United States and improving understanding of the potential role operator training could play in reducing crashes involving ambulances.

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

Highway safety research provides the basis for designing, testing, and implementing data-driven programs that have been demonstrated to reduce crashes, deaths, and injuries and save society millions of dollars that would otherwise be lost to the preventable costs of traffic crashes.

Highway safety research has contributed significantly to the widespread adoption of numerous programs proven to reduce fatalities, injuries, and crashes. Examples include the national *Click It or Ticket* program, Standardized Field Sobriety Tests (SFST) used by law enforcement officers investigating potential impaired driving cases, State primary seat belt and distracted driving laws that allow law enforcement officers to ticket without any other traffic offense taking place, the national 0.08 Blood Alcohol Concentration (BAC) limit, Graduated Driver Licensing (GDL) laws for teen drivers, greater understanding of older driver issues, and effective pedestrian and bicycle safety programs.

Research is needed to identify more effective and efficient countermeasures for existing traffic safety risks such as alcohol-impaired driving, drug-impaired driving, speeding, and non-use of seat belts, and to develop new solutions for emerging and resurgent problems such as pedestrian and bicyclist safety, motorcycle safety, driver drowsiness, and distracted driving.

HIGHWAY SAFETY PROGRAMS
Behavioral International Program

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Behavioral International Program	\$102	\$102

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

The Behavioral International Program contributes to the Departmental safety priority through the exchange of information with other Nations concerning emerging traffic problems, countermeasure strategies, and program evaluations. The program also extends the Department’s international leadership on motor vehicle safety issues and provides a stronger foundation for international negotiations and partnerships regarding U.S. trade and economic interests.

The Behavioral International Program establishes cooperative relationships with the agency’s traffic safety counterparts from other Nations, providing the Department with opportunities to learn from the experience and research of those who address similar issues. With the increasing globalization of markets, emerging problems such as driver distraction and drug-impaired driving have global effects. Through international connections, NHTSA can collect information about the nature of traffic safety issues and the effectiveness of countermeasures deployed in other Nations in order to utilize these insights in planning U.S. strategies.

Results from the Behavioral International Program are seen both in examples of international leadership and in tangible global safety progress. The results of a recent partnership with the United Nations Economic Commission for Europe (UNECE) and the Government of India contributed to improved road safety in South East Asia and was the focus of a widely attended international roundtable at the United Nations in Geneva in 2018. The success of the partnership was praised by the global road safety community and extended U.S. goodwill among the same community that is engaged in the harmonization of vehicle safety standards and other issues of direct U.S. interest.

In FY 2020, NHTSA requests \$102 thousand for the Behavioral International program. Through this request, the Behavioral International Program will:

- Contribute to the development of widely disseminated tools, models, and guidelines for improving road safety in low and middle-income nations;
- Engage with UNECE member nations to develop guidance for safe deployment of vehicles with automated driving systems in traffic; and
- Engage with the UNECE on international agreements regarding issues of interest to the U.S. such as the specifications and reciprocity of international driving permits.

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

International leadership in road safety benefits the American public in several ways. Sharing U.S. experience and technical expertise with developing nations is, first, a humanitarian effort that can improve the quality of life of individuals around the globe, addressing the cause of more than 1.2 million deaths each year and the leading cause of death for young people worldwide. Global road safety leadership is also an effective means for international diplomacy and enhancing global community. In addition, U.S. efforts to improve global road safety contribute to the adoption of common vehicle safety standards, driver licensing processes, and traffic codes, thereby facilitating international trade, travel, and international development. Further, international collaboration provides NHTSA with opportunities to learn about effective programs – such as Vision Zero and the Safe System Approach - that can be modified and adopted in local communities in the United States.

HIGHWAY SAFETY PROGRAMS
Office of Defects Investigation

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Defects Investigation - Recall Management (TF)	\$0	\$2,000

Note: The budget request proposes to fund \$2.00 million for the Defects Investigation program within the Highway Safety Research and Development account, and \$11.61 million in funding is provided for under the Vehicle Safety account.

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

The Office of Defects Investigation (ODI) investigates potential vehicle defects through analysis of trends in data received by many sources, and where appropriate, seeks recalls of vehicles and vehicle equipment that pose an unreasonable risk to safety. From 2014 - 2017, ODI opened over 140 investigations into potential defects and issued 14 consent orders to vehicle manufacturers that were found to be non-compliant with their defect and recall reporting obligations. Vehicle and equipment recalls are at historically higher rates over the past three years due to increased ODI oversight and actions taken with and by manufacturers. In 2017, ODI's recall management division processed 899 vehicle and vehicle equipment recalls resulting in over 42 million units under recall, including vehicles and equipment. NHTSA's Recall Management program monitors the field execution of the hundreds of motor vehicle and motor vehicle equipment safety recalls it receives annually. This monitoring includes intake and review of manufacturer reports on the completion rates of their safety recalls.

In FY 2020, NHTSA requests \$2.00 million to support the Defects Investigation Recall Management program. The agency proposes to use the funding to conduct research into what data are needed and what analytical tools, such as predictive modeling, may need to be developed to increase recall response rates. The research results will help NHTSA enhance its existing oversight of recalls completion rates to better assess what factors are responsible for a particular recall's completion rate and to work with manufacturers when targets are not met. Developing a better understanding of consumer behavior and recall response rates will allow NHTSA to develop more effective messaging tailored to specific demographic groups.

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

Recalls of vehicles and equipment have reached all-time highs in the last several years. Recent examples like the sheer complexity and scope of the Takata airbag inflator recall exemplify the challenges faced by NHTSA in understanding how maximize recall completions. Completion of safety recalls by vehicle and equipment owners is voluntary. Understanding what may or may not influence the public to take action to complete a recall on their vehicle or equipment, therefore, is critical to the prophylactic mission of the safety recall. In addition, understanding what data points NHTSA most needs to fairly assess and predict the relative performance of safety recalls in a universe in which those products have innumerable distinctions in design, function, price point, complexity, and age, in addition to the innumerable demographics of their purchasers, is similarly critical.

HIGHWAY SAFETY PROGRAMS
National Driver Register

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
National Driver Register - (Program funds only)	\$3,577	\$3,887

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

The National Driver Register (NDR) is a nationwide clearinghouse of problem drivers whose privilege to drive has been revoked, suspended, cancelled, or denied for cause; or who have been convicted of a serious driving violation, such as driving under the influence of alcohol. Every individual who applies for a license or a license renewal is vetted through the NDR's Problem Driver Pointer System (PDPS) to determine if the person is currently subject to revocation or suspension actions in another State.

The PDPS "points" the State of Inquiry to the State of Record, where an individual's driver status and history information is maintained. The NDR also assists Federal agencies and other transportation-related entities in their hiring and certification processes. The States and transportation-related entities use the information in the NDR to ensure that commercial drivers, locomotive engineers, merchant mariners, and airline pilots meet all necessary qualifications for operator license certification.

In FY 2020, NHTSA requests a total of \$5.50 million for the National Driver Register program, including \$3.89 million for program activities and \$1.61 million for administrative expenses including salaries and benefits. With the requested level of funding, NDR will:

- Maintain reliable operations of the NDR;
- Continue to develop PDPS improvements based on the recommendations from the NDR Working Group;
- Respond to an increasing number of Federal agencies requesting access to the NDR database (e.g. Department of Defense, Marine Corps, Department of the Army, Department of the Navy, and Architect of the Capitol);
- Provide timely responses to electronic inquiries from State driver licensing agencies;
- Provide timely responses to inquiries from Federal agencies that certify aircraft pilots, Coast Guardsmen, merchant mariners, and locomotive engineers;
- Provide timely responses to inquiries from employers of motor vehicle operators, including Federal agencies;
- Maintain disaster recovery capability and perform semi-annual testing;
- Perform continuous monitoring of cyber system security risk by evaluating one-third of federally-mandated (NIST 800-53) controls each year;
- Provide support through Information System Security Officer roles for PDPS;

- Continue to “harden” and secure the PDPS against any potential vulnerability or threat;
- Remain current with technological advances in system architecture and design;
- Begin designing system enhancements that improve the quality of information provided to States and other users;
- Engage States to identify additional functional upgrades and system enhancements that will further increase the value of the system;
- Develop plans to recertify State compliance with system requirements and procedures;
- Leverage cooperative agreement to better serve the States; and
- Continuously modernize the Problem Driver Pointer System.

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

The National Driver Register (NDR) assists States and Federal agencies in keeping problem drivers from obtaining driver licenses and operator certifications. The NDR is the only central repository of information identifying problem drivers and is used daily by all 50 States and the District of Columbia. Other authorized users access the NDR to determine if a driver license applicant, locomotive engineer, merchant marine, airline pilot, or commercial driver should be issued an operator’s license.

The NDR processes an average of 112 million transactions from State and Federal users in a year and identifies between 7 and 8 million probable problem drivers, many of whom were convicted of driving under the influence of drugs or alcohol. From 2002 to 2017, State and Federal use of the NDR increased 115 percent, as measured by inquiry transactions to the system. In the past five years, the NDR processed 552,000,000 transactions for State and Federal customers. Continued efficient processing of transactions in the State Division of Motor Vehicles (DMV) offices often result in decreased wait times for driver license customers. The PDPS is a mission critical system in NHTSA and currently contains 53 million pointer records in the system.

The NDR works to support other NHTSA countermeasure programs such as impaired driving and driver licensing programs. When an arrest and conviction is made for driving under the influence of drugs or alcohol, the court sends the conviction to the motor vehicle administration. In accordance with Title 49 USC 303, the State must report to NDR within 31 days resulting in a record being added to the PDPS. If the driver attempts to obtain a license in another State or renew their current license, a search of the NDR will result in a “hit” and denial of the applicant’s license.

Continued operation of the NDR enables States to comply with the provisions of the Motor Carrier Safety Improvement Act, which requires States to check the NDR on all driver license renewals as well as new license issuance. Additionally, the Commercial Motor Vehicle Safety Act requires an NDR file check on all commercial driver applicants. These and other Federal legislative mandates have resulted in dramatic increases in NDR system usage over the past decade.

Detailed Justification for National Center for Statistics and Analysis (NCSA) Programs

FY 2020 - NCSA - SUB-PROGRAM BUDGET REQUEST

(\$000)			
National Center for Statistics and Analysis (NCSA) Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Traffic Records	\$1,918	\$1,918	\$1,918
Crash Data Collection	\$35,863	\$35,863	\$37,856
Data Analysis	\$1,651	\$2,000	\$2,700
Regulatory Analysis and Evaluation	\$509	\$509	\$509
NCSA Total	\$39,941	\$40,290	\$42,983

In FY 2020, NHTSA requests \$42.98 million for National Center for Statistics and Analysis (NCSA) program activities. This amount includes an additional \$2.00 million to support a new crash causation study and \$700 thousand for upgrades to NCSA’s data science tools and capabilities. This amount does not include the \$500 thousand in Vehicle Safety funds that supplements Crash Data Collection programs. Funding at this level will allow NHTSA to maintain its core programs and continue implementation of new, modernized data collection systems. Key initiatives include:

Traffic Records

- Continue to provide in-depth, uniform assessments of State traffic safety data systems (crash, driver, vehicle roadway, citation and adjudication, and injury surveillance) that help States identify and prioritize safety data improvement efforts;
- Continue to provide in-depth technical assistance in support of State traffic safety data improvement via the GO Teams and the Crash Data Improvement Program (CDIP); and
- Continue efforts to harmonize data collection and management via promotion of the recently updated Model Minimum Uniform Crash Criteria (MMUCC), 5th Edition.

Crash Data Collection

- *Fatality Analysis Reporting System (FARS)*: Provide an annual census of motor vehicle traffic crash fatalities and maintain the FARS early notification data used to publish quarterly and annual projections of motor vehicle traffic fatalities;
- *Crash Investigation Sampling System (CISS)*: Maintain and operate CISS collection sites that provide nationally representative data on crashes resulting in at least one towed, passenger vehicle and create files for agency, Departmental, and public analysis;
- *Crash Report Sampling System (CRSS)*: Collect a nationally representative sample of police crash report data and create files for agency, Departmental, and public analysis;
- *Special Crash Investigations (SCI)*: Conduct on-site and remote crash investigations to identify unintended consequences of vehicle-related crashes or incidences, support potential

recalls and other agency enforcement efforts, conduct countermeasures research, and collect data on driving automation systems;

- *State Data Transfer Program*: Increase the number of States using the Electronic Data Transfer (EDT) system to share their near real-time crash data with the agency and maintain the State Data Crash File system, which collects and processes data from 34 State crash files annually;
- *Non-Traffic Surveillance (NTS) Program*: Gather available information about non-traffic crashes and non-crash motor vehicle incidents for analytic purposes; and
- *Crash Causation Study*: Perform a crash causation study that reflects current technology and driver behaviors to provide up-to-date analyses critical to developing crash prevention measures, policies and enforcement programs.

Data Analysis

- Produce quarterly estimates of fatalities for calendar years 2019 and 2020: the *Annual Assessment of Motor Vehicle Traffic Crashes*, the *Traffic Safety Facts Annual Report*, and *16 Traffic Safety Fact Sheets*;
- Provide metrics used to track performance of NHTSA safety programs and DOT's safety goal, including estimating lives saved by belts, air bags, minimum drinking age laws, child safety seats, and motorcycle helmets; and
- Enhance data science capabilities with additional training and tools that will enable NCSA to provide improved data visualizations, analyses, and reporting for agency, Departmental, and public consumers.

Regulatory Analysis and Evaluation

- Conduct cost and weight analyses (based on physical “tear-down”) of regulated, proposed, or emerging vehicle technology;
- Conduct engineering assessments in review of existing regulations;
- Conduct special data collections in support of safety rulemakings and evaluations; and
- Provide analytical support in cost and benefit studies and regulatory evaluations of NHTSA safety regulations.

National Center for Statistics and Analysis
Traffic Records

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Traffic Records	\$1,918	\$1,918

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

NHTSA’s Traffic Records Program delivers a variety of evaluation and analysis products that help States improve the six core State Highway Safety Information Systems: crash, driver, vehicle, roadway, citation and adjudication, and injury surveillance. State traffic records data are essential to the implementation and evaluation of State highway safety policies and countermeasure programs and support the data systems NHTSA relies on to administer its programs as a data-driven agency. Additional information on our Traffic Records program can be found at <https://www.nhtsa.gov/research-data/traffic-records>.

In FY 2020, NHTSA requests \$1.92 million for the Traffic Records program. This funding will allow NHTSA to continue successes of the State traffic records assessment program, the State technical assistance GO Teams, the Crash Data Improvement Program (CDIP), and to coordinate with Federal and State partners on additional safety data improvement efforts. This funding will enable NHTSA to help States improve their traffic records data systems—increasing data quality at the State level, and at the National level with information provided to NHTSA’s modernized data systems.

Funding at the requested level will enable the Traffic Records Program to accomplish the following in FY 2020:

- Continue State traffic records assessments that benchmark the status of State Highway Safety Information Systems, provide States with recommendations on ways to improve each of the six core systems, and enable States to qualify for Section 405(c) State traffic safety information systems grants;
- Respond to data requests and inquiries from NHTSA, the Department, other Federal agencies, States, and research institutions;
- Coordinate the work of the DOT Traffic Records Coordinating Committee (DOT|TRCC) - an intermodal traffic safety group that produces original research, coordinates State outreach, and encourages Departmental collaboration on safety data improvement efforts;
- Deliver timely, useful technical assistance to State traffic records personnel seeking to improve their data systems by deploying technical assistance GO Teams.
- Continue deployment of the Crash Data Improvement Program that assists States improving their crash data quality and aligning their crash data with the Model Minimum Uniform Crash Criteria (MMUCC);

- Help States evaluate the consistency of their crash data by providing standard guidance on mapping their crash data to the data elements and attributes in the MMUCC Guideline; and
- Provide funding, technical guidance, and content to the Association of Traffic Records Information Professionals (ATSIP) in support of the annual International Forum on Traffic Records and Highway Safety Information Systems and ATSIP's custodianship of the ANSI D.16 *Manual on Classification of Motor Vehicle Traffic Crashes*.

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

Funding for the Traffic Records program is needed to improve how States collect, manage, and analyze their traffic safety data. States use their traffic records data to develop their highway safety plans, assess performance, and quantify improvements from highway safety countermeasure programs, which benefit the American public by reducing traffic fatalities and serious injuries.

The quality of State highway safety information systems varies and efforts to improve them are often hampered by lack of technical and financial resources. The Traffic Records Program works to fill this gap by deploying traffic records program assessments, on-demand technical assistance and training through the GO Team program, deep analysis of State crash system data quality via the Crash Data Improvement Program, online training, and a variety of targeted research and noteworthy practices, including providing workshops to help State Traffic Records coordinating Committees develop strategic plans for the States. The Traffic Records program works to update and promote the adaptation of voluntary national standards for crash data through Model Minimum Uniform Crash Criteria (MMUCC). This includes working with States to develop a standard data element and attributes in anticipation of capturing crash data on autonomous vehicles.

National Center for Statistics and Analysis
Crash Data Collection

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Crash Data Collection (Includes FARS, CRSS, CISS, SDT, SCI)	\$35,863	\$37,856

Note: Crash Data Collection is partially funded from the Vehicle Safety account, but most funding is provided for under the Highway Safety Research & Development account.

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

The Crash Data Collection Program provides the quality data that underpins essential traffic safety behavioral and vehicle safety programs and policies. The Crash Data Collection program includes both State crash report-based systems (Fatality Analysis Reporting System, Crash Report Sampling System, Non-Traffic Surveillance and State Data Transfer) and crash investigation-based systems (Crash Investigation Sampling System and Special Crash Investigations).

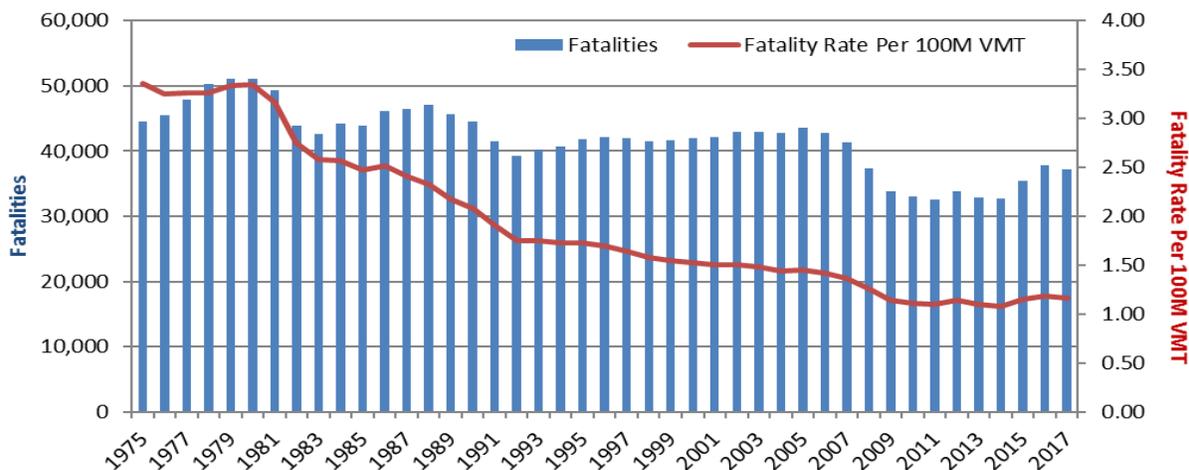
The crash data collection systems comprise both police-reported motor vehicle crash data reports collected by States and NHTSA-directed investigations of crashes representative of all traffic crashes. Police-reported crashes from State record-based systems are recoded into a uniform format to provide counts and trends. NHTSA-directed crash investigations provide the detailed data required for countermeasure development and evaluation. A sample-based approach provides nationally representative data at a small fraction of the cost to investigate or collect and manually recode the millions of police-reported crashes. Each data collection system is described below.

In FY 2020, NHTSA requests \$37.86 million from the Highway Safety Research and Development program to complement the \$500 thousand provided from the Vehicle Safety account specifically for Crash Data Collection. This request includes \$2.00 million to support the development of a new crash causation study. This budget request reflects NHTSA’s need to sustain its crash data collection efforts to include the following activities:

Fatality Analysis Reporting System

The Fatality Analysis Reporting System (FARS) is the sole source for nationwide standardized, State-documented information on police-reported traffic crashes with at least one fatality. FARS provides an annual collection of over 30,000 fatal crash cases from all 50 States, the District of Columbia, and Puerto Rico. FARS is the principal source of nationwide data on motor vehicle fatalities that supports the development of policies and programs to reduce fatalities on the Nation’s highways. FARS data are vital not only for NHTSA, but also for the States, Congress,

FARS Fatalities and Fatality Rate (per 100M VMT) 1975-2017



other Federal agencies, national and international researchers, and the public. FARS data is utilized to identify vehicle crash avoidance technology needs and research countermeasures,

inform defects investigations, evaluate State grant programs, assess the effectiveness of regulations, and measure performance against identified goals.

In FY 2020, the FARS will perform a census of all fatal motor vehicle traffic crashes occurring in the 50 States, District of Columbia, and Puerto Rico, and create a 2018 final file and 2019 preliminary file. It will also provide the early fatality estimates for quarterly and annual projections of motor vehicle traffic fatalities, and continue to improve data collection methods, data quality, and timeliness for dissemination to decision-makers.

Crash Investigation Sampling System

The Crash Investigation Sampling System (CISS) is the sole source for nationally representative, in-depth data on crashes resulting in at least one towed, passenger vehicle. In FY 2020, CISS will collect detailed crash data from 32 geographic regions across the nation. The CISS annual file contains uniformly coded crash investigation information on approximately 4,000 crash cases. CISS uses highly trained technicians to perform detailed crash investigations that include comprehensive documentation of scene evidence, vehicle damage, event data recorder data, crash avoidance technologies, and thorough coding of all crash-related injuries from medical records.



The CISS data is used to quantify the relationship between occupants and vehicles in the real-world crash environment, as well as the effect of crash avoidance technologies. This data provides the foundation for understanding the relationship between vehicle crash severity and occupant injury, which are then utilized to initiate, develop, and evaluate effective countermeasures.

In FY 2020, CISS will collect data in the 32 sites, create and release a 2019 weighted file for analysis to the public, and continue to maintain and operate 32 CISS sample sites.

Crash Reporting Sampling System

The Crash Report Sampling System (CRSS) is the sole source for standardized information on a national sample of police-reported traffic crashes of all severities involving all types of motor vehicles. Currently, CRSS samples crash data from 60 geographic regions across the nation. The CRSS annual file contains uniformly-coded crash report information on over 50,000 crashes that can be weighted to create national estimates. CRSS data is used to assess the overall State of highway safety, identify existing and emerging trends, estimate the number of people injured in motor vehicle traffic crashes and assess the effectiveness of highway safety programs.



In FY 2020, CRSS will collect data in the 60 nationally representative sites, create a file for analysis, and make the data in the 2019 annual file available to the public.

Special Crash Investigation Program

The Special Crash Investigation (SCI) program employs experts in crash reconstruction to perform in-depth investigations on specific motor vehicle crashes. Currently, the program employs three investigative teams based at locations across the nation, with additional investigators based at DOT Headquarters. These teams conduct approximately 100 investigations annually. The program is flexible so that the focus of these investigations can change as needed to provide up-to-date data on current and emerging issues of special interest. These real-world crash investigations enable NHTSA to examine and assess the safety performance of new technology such as driving automation systems and Advanced Driver Assistance Systems (ADAS) and provide early detection of potential vehicle issues. No other NHTSA data collection effort provides this level of detail on very specific crashes of interest.



In FY 2020, the Special Crash Investigation program will perform in-depth investigations on approximately 100 cases across the country through three investigation teams, will continue to support to the Office of Defects Investigation's early detection of alleged or potential vehicle defects, and will continue to support the review of new driving automation systems and the rapidly changing crash avoidance technologies and other high-profile crash areas of interest.

State Data Transfer Program

The State Data Transfer Program includes the State Data Crash file system and the Electronic Data Transfer system. The State Data Crash files program consists of over 10 million records collected from 34 individual State data systems and processed into standard formats to complement the crash data collected in NHTSA's other systems. These files are used in regulatory analyses and research because they often contain data that other NHTSA crash data files do not have. The Electronic Data Transfer (EDT) program increases the timeliness and access to crash data at the State-level in near real-time. The files not only provide data that other NHTSA crash data files do not, but provide the ability for more timely problem identification and measurement of countermeasure effectiveness. In FY 2020, the State Data Transfer Program will increase the number of States participating in the EDT system—providing more timely problem identification and countermeasures effectiveness—and continue collecting and processing data annually from State data crash files.

Non-Traffic Surveillance Program

The Non-Traffic Surveillance program collects non-traffic data in response to provisions in The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and the Cameron Gulbransen Kids Transportation Safety Act of 2007 (KT). This program provides data critical to understanding deaths and injuries in motor vehicle non-impact incidents and crashes that occur on non-public roads, driveways, parking lots, and other private areas.

In FY 2020, the Non-Traffic Surveillance Program will continue gathering available information about non-traffic crashes and non-crash motor vehicle incidents.

Crash Causation Study

Crash causation research typically relies on detailed evidence collected from the crash scene directly or via alternative methods aggregating various data sources. The last National Motor Vehicle Crash Causation Study (NMVCCS) was performed in 2005-2007. In the intervening years, vehicles, driver behavior, highways, and technology have changed in different ways and the NMVCCS data may not reflect contemporary traffic safety challenges like distraction from consumer electronics use or opportunities such as assistance provided by modern crash avoidance technologies. A new crash causation data collection study is needed to obtain “fresh” data from real-world observations, interviews, and/or alternative methods and data sources. The resulting data will enable researchers to better understand the role of changes in user behavior and technology and their role in why crashes happen. NHTSA will need this information to guide the design, development and evaluation of these new vehicle technologies. The Federal Highway Administration (FHWA), the Federal Motor Carrier Safety Administration (FMCSA), private industry and public interest groups would also benefit from updated crash causation information.

In FY 2020, NHTSA will explore the design of a new crash causation study (or series of studies) to update the emerging factors in the national crash trends. To help control costs, the technology will be developed using the current information technology platform and existing CISS infrastructure. The agency will collaborate closely with our public and private partners.

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

NHTSA’s data collection systems are the preeminent source of traffic safety information at the Federal, State, and local levels. Accurate, accessible, timely, and standardized data allow decision makers to identify the primary factors related to the source of crashes and their outcomes, develop and evaluate effective safety countermeasures, support traffic safety operations, measure progress in reducing crashes and their severity, design effective vehicle safety regulations, and target safety funding.

With relevant and timely data, NHTSA can make informed policy, program, and regulatory decisions that will lead to improved motor vehicle safety. With quality data in usable formats, resources will not be wasted compiling information that may identify emerging trends and serious safety problems. With good data, the effectiveness of programs standards and progress in meeting safety targets can be accurately measured. Better data leads to safer roads and safer vehicles.

National Center for Statistics and Analysis
Data Analysis

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Data Analysis Program	\$2,000	\$2,700

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

The Data Analysis program provides foundational information, analysis, and statistical services to NHTSA and the traffic safety community. The program’s data integration, analysis, and visualization capabilities support Departmental and agency strategic plans and promote intermodal, data-driven solutions to roadway safety issues. Data Analysis’ highly skilled statisticians and analysts work across the agency to ensure that projects and programs clearly and correctly use complex data collection and analysis tools. The program also supports the States in tracking their highway safety performance targets for NHTSA grant programs.

Additionally, this program disseminates a variety of traffic safety data products to the public via multiple media. The program’s website and publications are relied upon by Federal, State, local, and international agencies; research institutions; motor vehicle manufacturers; safety groups; advocacy groups; and the public to improve traffic safety.

In FY 2020, NHTSA is requesting \$2.70 million for the Data Analysis program. This request includes \$700 thousand to enable National Center for Statistics and Analysis (NCSA) to develop enhanced data science capabilities and provide improved data visualization, analyses, and reporting for agency, Departmental, and public consumers. Given the rapidly changing transportation landscape—in particular the development of Automated Driving Systems (ADS)/Advanced Driver Assistance Systems (ADAS) technologies and evolving data needs—analysis must keep pace with the increasing demand for timely and innovative information that addresses emerging safety issues. Access to innovative tools and associated training are vital to Data Analysis’ efforts to furnish its customers with the enhanced data services they require.

The requested funding will enable the program to accomplish the following:

- Develop a modern analytic platform to keep up with rapid changes in the data environment and analytic technologies/methodologies to advance the understanding of safety risks and the development of innovative solutions in emerging areas such as ADS/ADAS;
- Explore and assess the usability and integration potential of various data sources including administrative records and unconventional data sources such as social media;
- Design and deploy data dissemination protocols to enhance the quality, visualization, and timeliness of data and analytic products, especially data from the modernized data collection system;

- Provide quarterly estimates of fatalities for calendar years 2019 and 2020;
- Provide expert statistical analysis to internal and external customers in a broad range of statistical and traffic safety areas, such as alcohol-impaired driving, occupant protection, drug-impaired driving, motorcycle safety, pedestrian/bicyclist safety, and other areas of interest;
- Continue to provide analytical and data support in the Department's distracted driving and pedestrian/bicyclist safety initiatives;
- Produce the *Annual Assessment of Motor Vehicle Traffic Crashes* including the *Traffic Safety Facts Annual Report* and the annual *Traffic Safety Fact Sheets* focusing on high-interest program areas;
- Provide the metrics that are used to track performance of NHTSA's activities and contribution to Departmental safety targets;
- Provide data and analytical support in Departmental and NHTSA strategic plans.
- Conduct statistical and data analysis to support emerging issues within NHTSA's vehicle and behavioral safety programs, including defects investigations;
- Utilize innovative technologies to enhance data dissemination procedures to improve the distribution of timely traffic safety information for program reviews and State grants by NHTSA and Federal Highway Administration (FHWA);
- Provide estimates of benefits in terms of lives saved by belts, air bags, minimum drinking age laws, child safety seats, and motorcycle helmets;
- Provide statistical and survey data expertise towards the full implementation of NHTSA's recent Data Modernization effort and other data collection initiatives;
- Conduct sample designs for special studies to expand the new modernized Crash Data systems;
- Update and maintain the State and Traffic Safety Information (STSI) portal;
- Conduct geospatial analysis to support location-based analyses;
- Evaluate and prototype innovative web-based reporting technologies and methods to provide timely and easier access to National Center for Statistics and Analysis (NCSA) crash data resources;
- Support NHTSA's data modernization efforts by enhancing NCSA's data analysis service for internal and external customers; and
- Support and respond to an increasing number of internal and external requests for data and analysis based on specific interest areas.

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

NHTSA relies on data to build, develop, and improve its vehicle and behavioral safety programs and to measure their performance. The Data Analysis program produces critical annual traffic safety publications, conducts research on specific highway safety topics, and reports on those investigations. The program provides critical data and statistical analysis to external customers and internal programs. The Data Analysis program also provides the analytical support in the agency for its strategic planning, rulemaking, and defects investigation efforts and will expand its activities in vehicle electronics analysis. The program provides data to the public by making it available, accessible, and transparent through NHTSA's website and www.data.gov.

Another important aspect of this program is the provision of data required to evaluate the effectiveness of vehicle and behavioral safety programs. The Data Analysis program provides the annual performance targets for the Department and NHTSA based on historical data analysis. Data and analytical expertise required for the States to develop new performance targets is also provided. Through the Data Analysis program, NHTSA, the Department, States, and the larger highway safety community can effectively develop, execute, evaluate, and modify their programs; which helps to achieve declines in fatalities, injuries, and the economic toll from motor vehicle crashes.

National Center for Statistics and Analysis
Regulatory Analysis and Evaluation

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Regulatory Analysis and Evaluation	\$509	\$509

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

The Regulatory Analysis and Evaluation program conducts regulatory analyses and evaluations of proposed NHTSA safety regulations or existing safety regulations, in support of Executive Orders 12866, 13563, and 13777. Executive Order 12866 requires Federal agencies to evaluate the costs and benefits of proposed and final rules in Regulatory Impact Analyses. Executive Order 13563 requires agencies to periodically review its existing significant regulations to determine whether any such regulations should be modified, streamlined, expanded, or repealed. Executive Order 13777 requires Federal agencies to review all existing regulations; identify those that meet specific review criteria; and make recommendations regarding leaving regulations as they are, or recommending their repeal, replacement, or modification.

NHTSA requests \$509 thousand for the Regulatory Analysis and Evaluation program. Funding provided in FY 2020 will allow the program to conduct:

- Cost and weight analyses (based on physical “tear-down”) of regulated, proposed, or emerging vehicle technology. Current examples include vehicle-to-vehicle technology, blind spot detection systems, roof crush resistance, and heavy-duty vehicle automatic emergency braking systems.
- Engineering assessments in review of existing regulations. Recent examples include engineering assessments of Federal Motor Vehicle Safety Standards (FMVSS) No. 138, tire pressure monitoring systems; FMVSS 213, child restraint systems; and FMVSS 108, lamps/reflective devices/associated equipment.
- Special data collections in support of safety rulemakings and evaluations. A current example is a survey of Tire Pressure Monitoring System malfunction and miscalibration to help evaluate and plan for possible changes to FMVSS 138.
- Analytical support in cost/benefit studies and regulatory evaluations of NHTSA safety regulations. Recent examples include an analysis of the cost and weight impacts of safety technologies related to FMVSS, and an evaluation of fatality reduction effectiveness by rear center three-point seat belts as mandated by FMVSS 208.

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

These funds provide cost estimates for many of NHTSA's new rules, provide support for evaluations of established rules, and help keep NHTSA standards current with ever-changing technology. This program enables NHTSA to comply with the regulatory analysis and evaluation provisions of Executive Orders 12866, 13563, and 13777. These functions benefit the American public by ensuring that NHTSA safety regulations are cost-efficient and effective. NHTSA safety regulations have saved over 600,000 lives since 1960.

NHTSA
FY 2020 HIGHWAY SAFETY RESEARCH & DEVELOPMENT
ADMINISTRATIVE EXPENSES

(\$000)			
Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Salaries and Benefits	\$26,357	\$30,259	\$30,231
Travel	\$506	\$557	\$457
Transportation of Things	-	-	-
Rent, Communications & Utilities	\$7,306	\$7,306	\$7,493
Printing	-	-	-
Other Services	\$15,436	\$14,928	\$8,854
Supplies	\$2,080	\$2,130	\$2,162
Equipment	-	-	-
Total Administrative Expenses	\$51,685	\$55,179	\$49,196
FTE	160	175	174

Administrative Expenses

In FY 2020, NHTSA’s Highway Safety Research and Development request includes \$49.20 million for the administrative expenses category. Costs associated with this category include the salaries and benefits for NHTSA employees who directly work on or indirectly provide support to the Highway Safety Research and Development programs together with other normal business expenses such as personnel operations; facilities management; parking management; printing and graphics; mail operation and dockets management operations; building security; utilities and building maintenance; voice, cable and wireless communications; Disability Resource Center; substance abuse awareness and testing; financial services; and procurement and acquisition services.

In FY 2020 budget, NHTSA will continue to distribute administrative expenses using a methodology based primarily on direct FTE allocation for the following categories: salaries and benefits, travel, transportation of things, rent, printing, supplies, equipment, and other services. Additionally, NHTSA payments for centralized administrative and support services for the Department’s Working Capital Fund (WCF) are estimated at \$29.34 million in FY 2020, and the expense is shared between accounts. The estimate assumes IT Shared Services will be brought under the Department’s WCF and is subject to change pending final determination of the agency’s contribution.

EXHIBIT III-1

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
HIGHWAY TRAFFIC SAFETY GRANTS
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
(\$000)**

	FY 2018 ACTUALS	FY 2019 ANNUALIZED CR	FY 2019 ENACTED	FY 2020 REQUEST
Section 402 Formula Grant Program	\$ 261,200	\$ 261,200	\$ 270,400	\$ 279,800
Section 2009 High Visibility Enforcement	29,900	29,900	30,200	30,500
Section 405 National Priority Safety Programs*	280,200	280,200	283,000	285,900
<i>Section 405 Occupant Protection Grants</i>	36,426	36,426	36,790	37,167
<i>Section 405 State Traffic Safety Information System Grants</i>	40,629	40,629	41,035	41,456
<i>Section 405 Impaired Driving Countermeasures Grants</i>	147,105	147,105	148,575	150,098
<i>Section 405 Distracted Driving Grants</i>	23,817	23,817	24,055	24,302
<i>Section 405 Motorcyclist Safety Grants</i>	4,203	4,203	4,245	4,289
<i>Section 405 State Graduated Driver Licensing Laws</i>	14,010	14,010	14,150	14,295
<i>Section 405 Non-Motorized Safety Pedestrian/Bikes</i>	14,010	14,010	14,150	14,295
Grants Administrative Expenses	26,329	26,329	26,608	26,817
TOTAL HIGHWAY TRAFFIC SAFETY GRANTS (TF) ¹	\$ 597,629	\$ 597,629	\$ 610,208	\$ 623,017

FTEs:

Direct Funded	75	88	88	88
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Note: Totals may not add due to rounding.

1. Total does not include State penalty transfers from FHWA. The FY 2018 transfer amount was \$104.3 million and the FY 2019 enacted amount is \$105 million. FY 2020 amounts are to be determined based on State penalty information.

HIGHWAY TRAFFIC SAFETY GRANTS TRUST FUND (TF)

Program and Performance Statement

The NHTSA Highway Traffic Safety Grant programs are the foundation for NHTSA’s national priority safety programs implemented in the States, District of Columbia, the Indian Nations, and the U.S. Territories. Using National and State data, States identify highway safety problems and direct programs and resources to the most promising safety countermeasures to save lives and prevent injuries. States annually set performance targets to direct resources to improve highway safety and provide an annual report outlining their safety progress. With the signing of the Fixing America’s Surface Transportation (FAST) Act (P.L. 114-94), several of the grant programs have been restructured to provide States with flexible and aligned resources to improve highway traffic safety for all road users. As of 2017, pedestrian fatalities declined for the first time since 2013 by 1.7%. Bicyclist fatalities declined by 8.1%...³⁰ To address these alarming safety trends, the FAST Act includes an additional grant program targeting non-motorized road users. It is imperative that NHTSA continue to fund cornerstone safety programs such as occupant protection and impaired driving, while also having the flexibility of funding new and emerging highway safety issues. Any funds available before the last day of any fiscal year must be reallocated from Section 405 subsections to Section 402. A total of \$623,017,000 is requested for NHTSA’s Highway Traffic Safety Grant programs in FY 2020.

FY 2020 – Highway Traffic Safety Grants \$623,017,000

(\$000)			
Program	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Section 402 State and Community Formula Grants	\$261,200	\$270,400	\$279,800
Section 2009 High Visibility Enforcement	\$29,900	\$30,200	\$30,500
Section 405 - National Priority Safety Programs	\$280,200	\$283,000	\$285,900
Grants Administrative Expenses	26,329	26,608	26,817
Account Total	\$597,629	\$610,208	\$623,017

³⁰ FARS 2013-2017. National Highway Traffic Safety Administration.

Section 402 State and Community Formula Grants
\$279,800,000

The State and Community Highway Safety formula grant program is the backbone of NHTSA's highway safety programs. These grants directly support the Department's efforts to promote safety by providing flexibility to States to address specific highway safety problems. States can use these grants for the following activities: alcohol, drugged and other impaired (distracted and drowsy) driving countermeasures; police traffic services; occupant protection (including child passenger safety and the dangers of heatstroke); traffic records; emergency medical services; motorcycle safety; pedestrian and bicyclist safety; speed management; and other innovative countermeasures to address emerging safety issues on America's roads.

Section 405 National Priority Safety Programs
\$285,900,000 (Total)

The Section 405 National Priority Safety Programs include mission critical traffic safety grants, as outlined in the subsections below. NHTSA requests funding to assist States to implement new strategies to address high risk populations including persons who still do not buckle up and/or continue to drink and drive.

Section 405 Occupant Protection Grants
\$37,167,000 (13% of Sec. 405 Total)

The Occupant Protection grant program is based on several eligibility criteria, including the development of comprehensive statewide occupant protection strategic plans and use of countermeasures focusing on areas such as rural and nighttime seat belt use, both being persistent occupant protection challenges. The program supports enactment and enforcement of primary enforcement seat belt laws. Seat belt use continues to be higher in States where vehicle occupants can be pulled over solely for not using a seat belt as compared with States with weaker or absent enforcement laws. These performance-based programs provide States that have achieved high belt use rates with flexibility on how to expend grant funds. With observed national seat belt usage now at 89.7 percent, States are turning to countermeasures focused on high risk populations.³¹ In FY 2020, States will continue focusing on persons most at risk of being killed or injured in a crash due to non-belt use, as well as participation in the national *Click It or Ticket* high visibility enforcement campaign.

³¹ National Occupant Protection Use Survey (NOPUS) 2017. National Highway Traffic Safety Administration.

Section 405 State Traffic Safety Information System Grants
\$41,455,500 (14.5% of Sec. 405 Total)

The State Traffic Safety Information System Improvements Grant program provides funds to States to improve the timeliness, accuracy, completeness, uniformity, integration and/or accessibility of a core State highway safety database to identify priorities for State and local highway safety programs. This program directly supports efforts to improve State highway safety data through needed traffic record systems improvements, including mission critical data systems such as Fatality Analysis Reporting System.

**Section 405 Impaired Driving Countermeasures, Ignition Interlock, and
24/7 Sobriety Grants**
\$150,097,500 (52.5% of Sec. 405 Total)

The Impaired Driving Countermeasures Grant program provides incentives to States to enact laws and implement programs to reduce impaired driving-related fatalities and injuries. In 2017, of the 37,133 motor vehicle traffic fatalities, there were an estimated 10,874 people (29%) killed in alcohol-impaired-driving crashes where at least one driver had a Blood Alcohol Concentration (BAC) of .08 or higher.³² This safety grant program establishes qualifying criteria for States based on their performance on certain benchmarks, and provides dedicated funding for adoption of ignition interlock and 24/7 sobriety program laws for all offenders. All States, the District of Columbia, and Puerto Rico are eligible for the impaired driving countermeasure grants³³, but the conditions that would be applied to the administration and expenditure of these grants would differ for each State based on its safety performance. The grant program establishes three State categories: 1) Low-Range States; 2) Mid-Range States; and 3) High-Range States calculated from impaired driving fatality rates. In FY 2020, States will continue to increase the deployment of ignition interlock and 24/7 programs, establish Driving While Intoxicated (DWI) courts, expand the use of Traffic Safety Resource Prosecutor networks, and expand Advanced Roadside Interdiction and Detection (ARIDE) and Drug Recognition Expert (DRE) training programs for the law enforcement community.

Section 405 Distracted Driving Grants
\$24,301,500 (8.5% of Sec. 405 Total)

The Distracted Driving Grant program provides incentives to States to enact and enforce complying laws to prevent distracted driving. The FAST Act offers increased flexibility, allowing States to spend funds on safety education and awareness. States can spend funds on activities for enforcement of these laws and other behavioral highway safety activities. NHTSA will use up to \$5 million to develop and place broadcast digital, and print media to support enforcement activities of State distracted driving laws. Media messaging will focus on reaching those population groups most likely to engage in risky distracted driving behaviors.

³² FARS 2017. National Highway Traffic Safety Administration.

³³ Territories are not eligible to apply for the basic impaired driving countermeasure grant as FARS data is not available to determine the qualification status. Territories are however eligible to apply for the Alcohol-Ignition Interlock Law and 24/7 Sobriety Program grants.

Section 405 Motorcyclist Safety Grants
\$4,288,500 (1.5% of Sec. 405 Total)

The Motorcyclist Safety Grant program encourages the 50 States, District of Columbia, and Puerto Rico to adopt effective motorcyclist safety programs, providing States additional flexibility to address emerging motorcycle safety issues. This program emphasizes State programs that include promoting rider education, improved motorist awareness, initiatives to reduce impaired driving and riding, and reducing the number of improperly licensed motorcyclists.

Section 405 State Graduated Driver Licensing Laws
\$14,295,000 (5% of Sec. 405 Total)

The State Graduated Driver Licensing (GDL) Laws program promotes State adoption and implementation of effective GDL laws. The program requires that novice drivers under the age of 21 years comply with a 2-stage licensing process, and outlines minimum standards a State GDL program must implement. The FAST Act adjusts age and learner permit criteria and allows for more flexible use of funds for States receiving GDL funds.

Section 405 Non-Motorized Safety
\$14,295,000 (5% of Sec. 405 Total)

The FAST Act introduced a new safety grant program to reduce pedestrian and bicyclist injuries and fatalities. States with annual combined pedestrian and bicyclist fatalities totaling more than 15 percent of the State's total final annual Fatality Analysis Reporting System (FARS) crash fatalities are eligible to receive funding. Funds can be used for law enforcement training, enforcement mobilization campaigns, and public education programs applicable to pedestrian and bicyclist safety.

High Visibility Enforcement
\$30,500,000

The High Visibility Enforcement (HVE) program provides funding for NHTSA media campaigns to increase seat belt use (*Click It or Ticket*) and decrease impaired driving (*Drive Sober or Get Pulled Over*). These HVE funds pay for broadcast and digital media to support State and local law enforcement efforts. Paid media will include advertisements in both English and Spanish, targeting those most at risk (18 to 34-year-old males) for traffic fatalities. Funding in FY 2020 will support the *Click It or Ticket* campaign in May and the *Drive Sober or Get Pulled Over* campaigns in August and December.

Detailed Justification for Highway Traffic Safety Grants

FY 2020 – HIGHWAY TRAFFIC SAFETY GRANTS – SUB-PROGRAM BUDGET REQUEST

(\$000)			
Highway Traffic Safety Grants Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Section 402 State and Community Formula Grants	\$261,200	\$270,400	\$279,800
Section 2009 High Visibility Enforcement	\$29,900	\$30,200	\$30,500
Section 405 - National Priority Safety Programs	\$280,200	\$283,000	\$285,900
<i>Sec 405 - Occupant Protection Grants</i>	<i>\$36,426</i>	<i>\$36,790</i>	<i>\$37,167</i>
<i>Sec 405 - State Traffic Safety Information System Grants</i>	<i>\$40,629</i>	<i>\$41,035</i>	<i>\$41,456</i>
<i>Sec 405 - Impaired Driving Countermeasures Grants</i>	<i>\$147,105</i>	<i>\$148,575</i>	<i>\$150,098</i>
<i>Sec 405 - Distracted Driving Grants</i>	<i>\$23,817</i>	<i>\$24,055</i>	<i>\$24,302</i>
<i>Sec 405 - Motorcyclist Safety Grants</i>	<i>\$4,203</i>	<i>\$4,245</i>	<i>\$4,289</i>
<i>Sec 405 - State Graduated Driver Licensing Laws</i>	<i>\$14,010</i>	<i>\$14,150</i>	<i>\$14,295</i>
<i>Sec 405 - Non-Motorized Safety Pedestrian/Bikes</i>	<i>\$14,010</i>	<i>\$14,150</i>	<i>\$14,295</i>
Program Activity Total	\$571,300	\$583,600	\$596,200

In FY 2020, NHTSA requests \$623.02 million for the Highway Traffic Safety Grants program, of which \$596.20 million is for direct program activities and \$26.82 million is for administrative expenses. Funding at the requested level will allow NHTSA and its partners to implement programs effectively aimed at increasing safety and reducing roadway fatalities. The FY 2020 budget request highlights:

- Mission critical areas that address the Nation’s major behavioral highway safety issues including, but not limited to, impaired drivers, unbelted motor vehicle occupants, distracted drivers, and un-helmeted motorcycle fatalities. Sections 402 and 405 grants will provide States and local communities a means of maintaining and expanding traffic enforcement, and implementing data-driven countermeasures, to reduce crashes, injuries, and fatalities, and reduce the economic burden caused by motor vehicle crashes.
- Reduced grant application burden, including the use of a single application process for all the grant programs with one annual deadline, coupled with the development of an enhanced IT system, Grants Management Solutions Suite (GMSS), for application submission and administration. This IT modernization effort will support State safety performance measurement activities and streamline State and Federal processes.
- Increased flexibility by allowing States to meet additional performance-based requirements for occupant protection, distracted driving, Graduated Driver Licensing (GDL) laws, and motorcycle safety.

- Grant eligibility criteria that are performance-based and more objective for easier compliance and administration.
- Full accountability through problem identification and analysis to allocate resources and measure outcomes using safety performance measures.
- Emphasis placed on building highway safety program partnerships and program capacity.
- States with high seat belt use rates may elect to use up to 100 percent of their occupant protection funds awarded for any eligible project or activity under Section 402.
- States qualifying for the Comprehensive Distracted Driving grants may use up to 50 percent of awarded funds for any Section 402 eligible project.
- States qualifying for a Comprehensive Distractive Driving grant that conform to Model Minimum Uniform Crash Criteria (MMUCC) 5th Edition's guidelines may use up to 75 percent for any Section 402 eligible project requirement if distracted driving data conform to the MMUCC requirements.
- States qualifying for a Motorcyclist Safety grant award may use up to 50 percent of awarded funds for any Section 402 eligible project, if the State is in the lowest 25 percent of all States for motorcycle deaths per 10,000 motorcycle registrations.
- States may use up to 75 percent of Graduated Driver Licensing (GDL) grant award funds for any eligible Section 402 project or activity.
- Low fatality States under the State GDL grant program, as determined by NHTSA, may elect to use up to 100 percent of grant funds awarded for any eligible Section 402 project. A low fatality State is one that is in the lowest 25 percent of all States for the number of drivers under 18 years involved in fatal crashes in the State as a percentage of the total number of drivers under 18 in the State.
- Non-motorized grant funds may be used only for training of law enforcement on State laws applicable to pedestrians and bicyclist safety; enforcement campaigns for State traffic laws applicable to pedestrians and bicyclist safety, and public education and awareness programs on State pedestrian and bicyclist safety laws.

HIGHWAY TRAFFIC SAFETY GRANTS
Section 402 State and Community Formula Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.402 Formula Grants	\$270,400	\$279,800

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

The State and Community Highway Safety formula grant program is the backbone of NHTSA’s highway safety programs. These grants directly support the Department’s safety efforts by providing incentives and flexibility to States to address highway safety problems. States can use these grants for the following activities: alcohol and other impaired (drugged, distracted, and drowsy) driving countermeasures; police traffic services; occupant protection (including child passenger safety, and the dangers of heatstroke); traffic records; emergency medical services; motorcycle safety; pedestrian and bicyclist safety; speed management; and other safety countermeasures to address emerging issues on America’s roads. In 2017, 37,133 people died as a result of motor vehicle crashes.³⁴ In addition to the human suffering and injuries caused by the tragedy of highway crashes, the total economic cost of motor vehicle crashes in the United States is estimated to be \$242 billion annually.

The Fixing America’s Surface Transportation (FAST) Act continues key components of program, including:

- All States, territories, District of Columbia, Puerto Rico, and the Bureau of Indian Affairs, that submit approved highway safety plans will receive safety grant funding based on the current formula which factors in road miles and population.
- States have the option of applying for supplemental funds for specialized NHTSA research and demonstration programs in the States that receive funds from the Research and Demonstration program.
- States are afforded flexibility that will result in more efficient use of State funds and could advance the completion of safety research projects of interest to the States.
- States are provided resources to implement a comprehensive, Statewide traffic safety enforcement program that helps ensure minimum levels of traffic enforcement in each jurisdiction.
- This core safety grant program will also allow States to pool money to fund regional programs and activities that span across State lines (e.g. combine alcohol or speed enforcement initiatives between bordering States).
- A portion of these grant funds will support a cooperative research and evaluation program of highway safety countermeasures to be jointly managed by NHTSA and the States.

³⁴ FARS 2017. National Highway Traffic Safety Administration.

In FY 2020, NHTSA requests \$279.80 million for Section 402 State and Community Formula Grants. Funding at this level will allow NHTSA safety partners to use proven and effective countermeasures to identify and address critical highway safety problems. The proven countermeasures were developed through NHTSA's research and demonstration program and documented in *Countermeasures That Work*, a highway safety countermeasure guide that is updated periodically by NHTSA for State Highway Safety Offices. Of importance, NHTSA is implementing a new, modernized Grants Management Solutions Suite (GMSS) information system that will significantly advance safety performance measurement and reporting by States. The grant program directly supports the Department's safety efforts by providing flexibility to States to address highway safety problems.

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

The Section 402 grant program is critical for States and Territories to address specific State and local highway safety problems that may be better solved through regional and local strategies. This program has become even more important as the number of highway-related fatalities rises, along with the economic costs associated with those crashes. States are an integral part of the solution but their role is extremely limited without the Federal funds. In addition to funding critical highway safety initiatives in the States, the request will support the implementation of a comprehensive Statewide traffic safety enforcement program to ensure continued traffic enforcement in resource-challenged States and communities, pool funding across jurisdictions for joint highway safety programs, and fund the cooperative research and evaluation program of highway safety countermeasures (to be jointly managed by NHTSA and the States).

HIGHWAY TRAFFIC SAFETY GRANTS
Section 405 Occupant Protection Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.405B National Priority Safety Program - Occupant Protection Grants	\$36,790	\$37,167

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

The Occupant Protection grant program is based on several eligibility criteria, including development of comprehensive Statewide occupant protection strategic plans and countermeasures focusing on rural and nighttime belt use, both of which are persistent occupant protection risks. Eligible States can qualify for grant funds as either a high seat belt use rate State or as a lower seat belt use rate State. All States participate in the nationwide *Click It or Ticket* (CIOT) campaign, have an active network of child restraint inspection stations, and have a plan to recruit, train, and maintain a sufficient number of child passenger safety technicians. States with lower seat belt use rates must meet three of six additional criteria to qualify for an occupant protection grant.

When used properly, occupant protection devices, including seat belts and child safety seats, can be 45 to 60 percent effective in reducing the risk of fatal injury in a crash. NHTSA estimates that among vehicle occupants age five years and older in 2017, seat belts saved an estimated 14,955 lives.³⁵ If all unrestrained passenger vehicle occupants age five years and older had worn seat belts in 2017, an estimated 2,549 additional lives could have been saved.

According to NHTSA’s *Countermeasures That Work*, studies indicate that correctly using a child restraint for a young child, or wearing a seat belt by older children and adults, is the single most effective way to save lives and reduce injuries in crashes. Since 1999, the Occupant Protection Grants program has worked effectively to help States establish Statewide occupant protection programs for children and adults. States have strengthened their occupant protection laws by providing stronger enforcement (from secondary to primary enforcement), and requiring that children ride properly secured in an age appropriate child restraint or booster seat (until they reach a certain weight and height limit).

In FY 2020, NHTSA requests \$37.17 million for Occupant Protection Grants. Funding at this level will allow NHTSA’s partners to support enactment and enforcement of primary enforcement seat belt laws. Belt use continues to be higher in States where vehicle occupants can be stopped solely for not using a seat belt, as compared with States with weaker or absent enforcement laws. These performance-based safety programs provide States that have achieved high belt use rates with

³⁵FARS 2017. National Highway Traffic Safety Administration.

flexibility on how to spend grant funds. With observed national seat belt usage now at 89.7 percent, States are focusing on countermeasures focused on high risk populations.³⁶

In FY 2020, States will continue identifying individuals at risk of being killed or injured in a crash due to non-belt use and participation in the national CIOT high visibility enforcement campaign. Grant funds could be used for a variety of occupant protection programs and activities, including support for high visibility enforcement campaigns, training, education, safety equipment, information systems, and child passenger safety programs.

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

Increasing seat belt and child safety seat usage saves lives and mitigates injuries. These grant funds support increased enforcement of the State occupant protection laws. States are working to use countermeasures focused on high risk populations such as nighttime, young, and pickup truck drivers, as well as minority and hard-to-reach population groups. National seat belt use is at 89.7 percent from 60 percent in 1995, when the first *Click It or Ticket* enforcement campaign was held.³⁷ Thirty-Three States, District of Columbia, Puerto Rico, and four Territories have primary seat belt laws; and all 50 States have child restraint laws.

³⁶ NOPUS 2017. National Highway Traffic Safety Administration.

³⁷ NOPUS 2017. National Highway Traffic Safety Administration.

HIGHWAY TRAFFIC SAFETY GRANTS
Section 405 State Traffic Safety Information System Improvements Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.405C National Priority Safety Program - State Traffic Safety Information System	\$41,035	\$41,456

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

The State Traffic Safety Information System Improvements Grants program supports improvements in highway and traffic safety records information systems, allowing States to identify, document and evaluate the most pressing safety problems. The program brings together different stakeholders – such as law enforcement, injury surveillance personnel and courts – to ‘communicate’ and link files in disparate data systems. Key areas include crash, driver licensing, vehicle registration, emergency medical services, injury surveillance systems, citation and adjudication, and roadway data systems. Improved data is critical for States to determine crash trends that include serious injury trends, identification of traffic safety issues, and determination of effectiveness of traffic safety programs. In addition, improved State data will enhance NHTSA’s ability to observe and analyze national trends such as crash occurrences, rates of injury, contributing casual factors, and emerging safety issues.

In FY 2020, NHTSA requests \$41.46 million for State Traffic Safety Information System Improvements. Funding at this level will allow NHTSA safety partners to improve the timeliness, accuracy, completeness, uniformity, integration, and accessibility of State traffic records for identifying priorities for State and local highway safety programs. States require data to assess accurately whether their countermeasure programs are effective in achieving project goals. Since the program began, States have implemented improvements such as transition from paper police crash reports to electronic reports, allowing timelier dissemination and analyses of data. The reports are more accurate, timely, uniform, and complete.

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

The program has provided better accessibility to stakeholders in need of safety data. The result - States can examine what countermeasures should be developed to improve safety on the Nation’s highways, while improving efficiency and effectiveness of data systems. Without accurate and timely data, States and the Federal government cannot properly identify safety trends and emerging safety problems.

HIGHWAY TRAFFIC SAFETY GRANTS
Section 405 Impaired Driving Countermeasures Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.405D National Priority Safety Program - Impaired Driving Countermeasures	\$148,575	\$150,098

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

The Impaired Driving Countermeasures Grants program provides financial incentives to States to enact laws and implement programs to reduce alcohol and drug-impaired driving related fatalities and injuries. The amended grant program builds on the success of the existing program while establishing qualifying criteria for States based on their performance on certain benchmarks such as alcohol-impaired fatality rate. All States, District of Columbia, and Puerto Rico will be eligible for grants, but the conditions that would be applied to the administration and expenditure of these grants would differ for each State based on its safety performance. The grant program establishes three State categories: 1) Low-Range States; 2) Mid-Range States; and 3) High-Range States. These categories are based on their impaired driving fatality rates. In addition, the program provides additional incentive funds to States that adopt a mandatory ignition interlock and/or a 24/7 program for offenders.

In FY 2020, NHTSA requests \$150.10 million for Impaired Driving Countermeasure Grants. Funding at this level will allow NHTSA’s partners to support programs that address driving under the influence of alcohol and/or drugs, as well as focus on State performance in addressing impaired driving. Grant funds may be used to support a wide range of impaired driving countermeasures. All grant recipients are required to participate in the national impaired driving crackdowns and comply with enforcement reporting requirements. Enforcement of strong impaired driving laws has proven to reduce impaired driving and the resultant fatalities and injuries caused by impaired driving crashes.

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

Funding will allow States to increase the deployment of ignition interlocks, establish Driving While Intoxicated (DWI) courts, expand the use of Traffic Safety Resource Prosecutors (TSRPs), and to expand Advanced Roadside Interdiction and Detection (ARIDE) and Drug Recognition Expert (DRE) training programs for law enforcement. In recent years, nearly 30 percent of fatal crashes involved an alcohol-impaired driver (BAC of .08 or higher), and 10,874 people were killed in these crashes during 2017.³⁸ Progress in addressing impaired driving crashes has been mixed. Some States and communities have demonstrated a commitment to address impaired driving issues and

³⁸ FARS 2017. National Highway Traffic Safety Administration.

have achieved considerable success, while others have achieved limited or no progress. Additional incentives to work on life-saving countermeasures in all States are needed. Strategies States are encouraged to promote with Section 405(d) funds may include checkpoints, DWI courts, Administrative License Revocation (ALR) legislation, and use of interlocks to decrease recidivism and keep drunk drivers off the road. Evaluation results can be found in *Countermeasures That Work* and other NHTSA publications. The percentage of alcohol-impaired driving fatalities has declined from 48 percent in 1982 to 29 percent in 2017.³⁹

³⁹ FARS 1982 and 2017. National Highway Traffic Safety Administration.

HIGHWAY TRAFFIC SAFETY GRANTS
Section 405 Distracted Driving Prevention Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.405E National Priority Safety Program - Distracted Driving	\$24,055	\$24,302

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

The Distracted Driving Prevention Grant program provides incentives to States to enact and enforce complying laws to prevent distracted driving. The Fixing America’s Surface Transportation (FAST) Act (P.L. 114-94) eased certain requirements for the Comprehensive Distracted Driving grant and affords States flexibilities on how grant funds may be spent. The basis for the Comprehensive grant is a requirement that the State tests for distracted driving issues on the driver’s license exam and that the State have a conforming law with a minimum fine. States would be able to spend grant funds on activities related to the enforcement of these laws or other behavioral highway safety activities. NHTSA funds up to \$5 million to develop and place broadcast, digital, and other media to support State and local high visibility enforcement activities during National Distracted Driving month in April. Media strategies will focus on reaching those segments of the population most likely to engage in distracted driving behavior. NHTSA conducted research that examined increase law enforcement efforts with and without accompanying paid media to increase seat belt use. The research showed the combination of enforcement and paid media was quite effective. To confirm the results, NHTSA conducted distracted driving demonstration projects using this model; the model was proven to work. Enforcement alone was not enough to increase seat belt or lower distracted driving activities, however adding the media component in conjunction with the enforcement results in the desired behavior.

In 2017, 3,166 people died in crashes involving a distracted driver.⁴⁰ Surveys indicate that most drivers are aware of the dangers of driving while talking on a cell phone or while texting. However, one survey found that two-thirds of drivers admitted to talking on their cell phone while driving last year, and 21 percent indicated that they had sent or read a text message while driving. The youngest Americans are most at risk, but they are not alone. An estimated 415,953 passenger vehicles were driven by people using handheld cell phones at a typical daylight moment in 2017.⁴¹ People of all ages are using a variety of hand-held devices when they are behind the wheel, such as cell phones and navigation devices. The request is intended to spur States to enact safety laws to prevent distraction, and provide funds for enforcement of these laws.

In FY 2020, NHTSA requests \$24.30 million for the Distracted Driving Prevention Grant program. Funding at this level will allow NHTSA and the States to work toward reducing crashes, injuries, and fatalities related to distracted driving. NHTSA will work with States to encourage law

⁴⁰ FARS 2017. National Highway Traffic Safety Administration.

⁴¹ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812665>

enforcement agencies nationwide to enforce current distracted driving laws through high visibility enforcement. These activities will be supported by appropriate broadcast, digital, and social media messaging. The funding will support development of policies and activities to strengthen efforts to end distracted driving.

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

Ownership and use of cell phones and other potentially distracting devices in motor vehicles has increased dramatically over the last few years and is expected to continue to grow. Unless our Nation acts soon to strongly discourage use of these devices while driving, more people will be killed or injured by distracted drivers. This funding level should provide adequate incentives to encourage States to pass and enforce laws to prevent distracted driving.

NHTSA's experience in programs to increase seat belt usage has demonstrated the effectiveness of strong laws coupled with high visibility enforcement. NHTSA completed a demonstration project with New York and Connecticut that showed a decline in both handheld cell phone use and texting while driving as the result of high visibility enforcement of laws banning handheld cellular phone use and texting while driving. According to *Countermeasures That Work*, an evaluation of a District of Columbia law banning handheld cell phone use while driving showed a 50 percent reduction in handheld use after one year; largely attributed to strong enforcement. More recently, NHTSA partnered with Delaware and California to demonstrate the effectiveness of high visibility enforcement of Statewide laws banning handheld cell phone use and texting while driving.

HIGHWAY TRAFFIC SAFETY GRANTS
Section 405 Motorcyclist Safety Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.405F National Priority Safety Program - Motorcyclist Safety	\$4,245	\$4,289

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

The Motorcyclist Safety Grant program encourages States to adopt effective motorcyclist safety programs. The grant program would allow States to expend funds on training and education activities to increase motorist awareness of motorcyclists and to train motorcycle operators.

In FY 2020, NHTSA requests \$4.29 million for Motorcyclists Safety Grants. Funding at this level will allow NHTSA’s safety partners to continue and expand efforts to reduce motorcycle crashes and address emerging safety issues at the State and local levels. In 2017, there were 5,172 motorcyclists killed in traffic crashes.⁴² Motorcyclists accounted for 14 percent of all traffic fatalities.⁴³ Motorcyclist fatalities decreased by 3.1% compared to 2016.

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

NHTSA estimates that helmets saved the lives of 1,872 motorcyclists in 2017. If all motorcyclists had worn helmets, an additional 749 lives could have been saved.⁴⁴ Helmets are estimated to be 37 percent effective in preventing fatal injuries to motorcycle riders and 41 percent for motorcycle passengers. In other words, for every 100 motorcycle riders killed in crashes while not wearing helmets, 37 percent of them could have been saved had they all worn helmets. Motorcyclist safety training and public awareness and outreach programs targeting both motorcyclists and motorists are countermeasures that are prominently featured in most State motorcyclist safety programs. This program will provide States more flexibility in using grant funds. Funds could be spent on a variety of activities, with an emphasis on enforcement and the promotion of helmet use laws, rather than solely motorcyclist awareness and training.

⁴² FARS 2017. National Highway Traffic Safety Administration.

⁴³ FARS 2017. National Highway Traffic Safety Administration.

⁴⁴ FARS 2017. National Highway Traffic Safety Administration.

HIGHWAY TRAFFIC SAFETY GRANTS
Section 405 State Graduated Driver Licensing Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.405G National Priority Safety Program - State Graduated Driver Licensing Laws	\$14,150	\$14,295

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

The State Graduated Driver Licensing (GDL) program encourages States to adopt and implement effective GDL laws. The program establishes minimum standards for novice teen driver licensing programs including a 2-stage licensing process with a learner’s permit stage and an intermediate stage. According to NHTSA’s *Countermeasures That Work*, studies indicate that a 2-stage driver licensing program decreases novice teen driver death and injury. Motor vehicles crashes are the leading cause of death for those ages 15 to 20 years old. In 2017, there were 1,830 young drivers 15 to 20 years old who died in motor vehicle crashes.⁴⁵

In FY 2020, NHTSA requests \$14.30 million for the State GDL program. Funding at this level will allow NHTSA safety partners to spend funds on enforcing a 2-stage licensing program, training law enforcement personnel, developing educational materials, and administrative activities. Generally, 75 percent of funds may be used for any traffic safety eligible project or activity under the Section 402 State and Community Formula Grant Program. The number of young drivers involved in fatal crashes has decreased by 26 percent from 2008 to 2017.⁴⁶

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

Novice driver licensing programs vary across States. This program provides dedicated funding to promote State adoption and implementation of standardized and comprehensive multi-stage GDL programs aimed at reducing young driver deaths.

⁴⁵ FARS 2017. National Highway Traffic Safety Administration.

⁴⁶ FARS 2008 and 2017. National Highway Traffic Safety Administration.

HIGHWAY TRAFFIC SAFETY GRANTS
Section 405 Non-Motorized Safety Grants

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
Sec.405H National Priority Safety Program - Non-Motorized Safety	\$14,150	\$14,295

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

The Non-Motorized Safety Grants program encourages States to implement programs to address pedestrian and bicyclist safety. More Americans are walking and biking, and consequently, more pedestrians and bicyclists are killed in motor vehicle crashes. NHTSA conducted the National Survey of Bicyclist and Pedestrian Attitudes and Behaviors in 2002, and again in 2012, to understand attitudes and self-reported behavior of bicyclists and pedestrians. In 2002, fewer than 30 percent of participants reported cycling more often than they had a year earlier, and in 2012 nearly 40 percent of respondents reported cycling more often than they had a year earlier. By 2012, there was a 14 percent increase among respondents who said they had walked in the past 30 days, and walked more often than they had a year earlier. Local bicyclist and pedestrian data corroborate this finding of recent increases in bicycling and walking.

In FY 2020, NHTSA requests \$14.30 million for Non-Motorized Safety Grants. Funding at this level will allow NHTSA safety partners to spend funds for law enforcement training, to implement effective law enforcement initiatives, and to educate the public on State traffic safety laws. There were 783 bicyclist fatalities in 2017, a decrease of 8.1 percent from 2016. There were 5,977 pedestrian fatalities in 2017, a decrease of 1.7 percent from 2016. As a percentage of the total motor vehicle-related deaths in 2017, pedestrian fatalities represented 16 percent and bicyclist fatalities represented 2.1 percent, for a total of 18.2 percent of total fatalities.

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

This grant program will support States with significant annual combined pedestrian and bicyclist fatalities, exceeding 15 percent of their total annual crash fatalities in the State, to conduct enforcement and education countermeasures sufficiently to address unique problems with pedestrian and bicyclist safety.

HIGHWAY TRAFFIC SAFETY GRANTS
High Visibility Enforcement

(\$000)		
Program Activity	FY 2019 ENACTED	FY 2020 REQUEST
High Visibility Enforcement	\$30,200	\$30,500

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

This program provides funding for NHTSA high visibility enforcement (HVE) media campaigns. The national occupant protection campaign (*Click It or Ticket*) occurs during the Memorial Day period and consists of two weeks of high visibility enforcement to increase the use of seat belts. This enforcement effort is supported by two weeks of paid national media and earned media activities. NHTSA follows the same model for the impaired driving campaigns to reduce alcohol- and drugged-impaired operation of motor vehicles. The impaired driving campaigns occur during the Labor Day and December holiday seasons. Beginning with the 2018 Labor Day campaign, NHTSA incorporated a drugged driving message, *If you Feel Different, You Drive Different: Get High, Get A DUI*, into its impaired driving campaign. This message will continue with the 2019 Labor Day and December holiday season. Using the *Drive Sober or Get Pulled Over* message or the *If You Feel Different, You Drive Different: Get High, Get A DUI*, HVE resources are used for broadcast, digital, and other media to support State and local law enforcement efforts.

Paid media will include advertisements in both English and Spanish languages and will continue to focus on at risk 18 to 34-year-old males. Paid media will focus on media venues that deliver programming particularly suited to this audience for both impaired driving (21 to- 34-year-old males) and occupant protection (18 to 34-year-old males), including late night TV, sports programming, and alternative media consumed by the target audiences. The impaired driving advertising effort for the Labor Day campaign also includes impaired motorcyclists, as motorcyclists continue to be overrepresented in alcohol-related crashes. Additionally, NHTSA will include other at risk populations overrepresented in alcohol-related crashes, such as newly-arrived Hispanics.



In FY 2020, NHTSA requests \$30.50 million for the High Visibility Enforcement (HVE) program. Funding at this level will provide NHTSA the resources necessary to develop and conduct media campaigns that will support law enforcement efforts to deter impaired driving (including drugged driving) and to increase seat belt use. By providing national media coverage, the States can leverage their resources to place advertising buys in very specific markets and concentrate efforts on engaging law enforcement. Funding will allow NHTSA to purchase media with very targeted messaging on enforcement activities and increase the driving public's awareness of zero tolerance for drunk, drugged, and unbuckled drivers.

The funds will provide for the production of advertisements and purchase of appropriate media in support of HVE seat belt mobilizations and impaired driving crackdowns (including drug-impaired driving). Funding in support of communications initiatives works in conjunction with law enforcement activities to modify community behavior by presenting the risks of both serious injury and/or a citation for violating occupant protection and impaired driving laws.

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

The request will support continued national and State efforts to increase safety belt use and decrease drunk and drug-impaired driving through media buys. The FY 2020 budget requests funding for three media buys; one occupant protection mobilization for Memorial Day; and two impaired driving enhanced enforcement periods during the Labor Day and December holiday seasons. These activities have proven effective in reducing fatalities and injuries on our highways. NHTSA conducted research that examined increased law enforcement efforts with and without accompanying paid media to increase seat belt use and to increase awareness of impaired driving enforcement. The research showed the combination of enforcement and paid media was quite effective. Enforcement alone was not enough to increase seat belt or decrease impaired driving, however adding the paid media component in conjunction with the enforcement resulted in the desired behavior.

NHTSA
FY 2020 HIGHWAY TRAFFIC SAFETY GRANTS
ADMINISTRATIVE EXPENSES

(\$000)			
Program Activity	FY 2018 ACTUALS	FY 2019 ENACTED	FY 2020 REQUEST
Salaries and Benefits	\$11,917	\$13,463	\$13,525
Travel	\$377	\$415	\$415
Transportation of Things	-	-	-
Rent, Communications & Utilities	\$428	\$428	\$737
Printing	-	-	-
Other Services	\$13,607	\$12,303	\$12,140
Supplies	-	-	-
Equipment	-	-	-
Total Administrative Expenses	\$26,329	\$26,608	\$26,817
FTE (includes indirect FTE)	75	88	88

Administrative Expenses

In FY 2020, NHTSA’s Highway Traffic Safety Grants request includes \$26.82 million for administrative expenses. Costs associated with this category include the salaries and benefits for employees in NHTSA’s headquarters Office of Grants Management Operations and ten regional office teams who carry out the NHTSA safety mission and directly support and guide NHTSA State partners. Administrative funding also supports other business expenses such as personnel operations, facilities management, parking management, printing and graphics, mail operation and dockets management operations, building security, utilities and building maintenance, voice, cable and wireless communications, Disability Resource Center, substance abuse awareness and testing, and procurement, acquisition, and support services.

In FY 2020, NHTSA will continue to distribute administrative expenses using a methodology based primarily on direct FTE allocation for the following categories: salaries and benefits; travel; transportation of things, rent, printing, supplies, equipment, and other services.

In 2018, NHTSA launched the initial phase of a modernized Grants Management Solutions Suite (GMSS) that will advance safety performance measurement and reporting by States. Included in the FY 2020 request is funding for the ongoing modernization of NHTSA’s information system to support the management and oversight of NHTSA highway safety grant program funds. The current processes are in large part paper-based, and impose negative impacts on Federal and State

resources. The investment in GMSS will enhance the oversight of Federally funded programs and will provide technological solutions to link State safety performance to grant programs. Also, included in the FY 2020 request is \$1.86 million for the National Occupant Protection Use Surveys (NOPUS). This funding will allow the agency to conduct a 2020 NOPUS survey and report overall seat belt use and motorcycle helmet use, and allow NHTSA to report on the results of child restraint use and belt use among rear-seat occupants from the 2019 NOPUS. Additionally, NHTSA payments for centralized administrative and support services for the Department's Working Capital Fund (WCF) are estimated at \$29.34 million in FY 2020, and the expense is shared between accounts. The estimate assumes IT Shared Services will be brought under the Department's WCF and is subject to change pending final determination of the agency's contribution.

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

APPROPRIATIONS HISTORY

OPERATIONS AND RESEARCH VEHICLE SAFETY PROGRAMS GENERAL FUND - APPROPRIATIONS

<u>Fiscal Year</u>	<u>Request</u>	<u>Fiscal Year</u>	<u>Enacted</u>
2011	\$132,837,000	2011	\$140,146,146
2012	\$170,708,723	2012	\$140,146,000
2013 ^{1/}	\$188,000,000	2013 ^{2/}	\$140,146,000
2014	\$148,343,000	2014	\$134,000,000
2015 ^{3/}	\$152,000,000	2015	\$130,000,000
2016 ^{4/}	\$179,000,000	2016	\$152,800,000
2017 ^{5/}	\$249,800,000	2017	\$180,075,000
2018 ^{6/}	\$152,509,527	2018	\$189,075,000
2019 ^{7/}	\$152,427,000	2019	\$190,000,000
2020	\$151,000,000	2020	-

^{1/} In FY 2013, the Budget proposed to move a number of current General Fund programs into the Transportation Trust Fund. Vehicle Safety Research was to be funded from the Trust Fund in 2013 and re-based from the General Fund in 2011 and 2012.

^{2/} FY 2013 Levels were reduced to reflect a .02% A-T-B rescission to all funds. In addition, Vehicle Safety General Fund were reduced by an additional .05% for sequestration.

^{3/} In FY 2015, the Budget proposed to move a number of current General Fund programs into the Transportation Trust Fund. Vehicle Safety Research was to be funded from the Trust Fund in 2015 and re-based from the General Fund in 2013 and 2014.

^{4/} In FY 2016, the Budget proposed to move a number of current General Fund programs into the Transportation Trust Fund. Vehicle Safety Research was to be funded from the Trust Fund in 2016 and re-based from the General Fund in 2014 and 2015.

^{5/} In FY 2017, the Budget proposed to move a number of current General Fund programs into the Transportation Trust Fund. Vehicle Safety Research was to be funded from the Trust Fund in 2017 and re-based from the General Fund in 2015 and 2016.

^{6/} In addition to the FY 2018 Enacted funding level, Sec. 144 of P.L. 115-141 provided \$11.5 million in additional general fund budget authority for 1) activities to reduce highway fatalities from impaired driving (\$5 million) and 2) a highway-rail grade crossing safety campaign (\$6.5 million).

^{7/} In addition to the FY 2019 Enacted funding level, Sec. 143 of P.L. 116-6 provided \$14 million in additional general fund budget authority for 1) activities to reduce highway fatalities from impaired driving (\$7 million) and 2) a highway-rail grade crossing safety campaign (\$7 million).

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

APPROPRIATIONS HISTORY

OPERATIONS AND RESEARCH HIGHWAY SAFETY RESEARCH AND DEVELOPMENT TRUST FUND - CONTRACT AUTHORITY

Limitation on Obligations & Liquidation of Contract Authority

<u>Fiscal Year</u>	<u>Request</u>	<u>Fiscal Year</u>	<u>Enacted</u>
2011	\$117,376,000	2011	\$105,500,000
2012 ^{1/}	\$133,191,276	2012 ^{1/}	\$109,500,000
2013 ^{1/}	\$150,000,000	2013 ^{2/}	\$115,500,000
2014 ^{1/}	\$118,500,000	2014 ^{1/}	\$123,500,000
2015 ^{1/}	\$122,000,000	2015 ^{1/}	\$138,500,000
2016 ^{1/}	\$152,000,000	2016 ^{1/}	\$142,900,000
2017 ^{1/}	\$145,900,000	2017 ^{1/}	\$145,900,000
2018 ^{1/}	\$149,000,000	2018 ^{1/}	\$149,000,000
2019 ^{1/}	\$152,100,000	2019 ^{1/}	\$152,100,000
2020 ^{1/}	\$155,300,000	2020 ^{1/}	-

^{1/} For FY's 2012-2020, National Driver Register is eliminated as a separate account and combined with the Highway Safety Research and Development fund.

^{2/} FY 2013 Levels were reduced to reflect a .02% A-T-B rescission to all funds. In addition, Vehicle Safety General Fund were reduced by an additional .05% for sequestration.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

APPROPRIATIONS HISTORY

HIGHWAY TRAFFIC SAFETY GRANTS TRUST FUND - CONTRACT AUTHORITY

Limitation on Obligations & Liquidation of Contract Authority			
<u>Fiscal Year</u>	<u>Request</u>	<u>Fiscal Year</u>	<u>Enacted</u>
2011	\$620,697,000	2011	\$619,500,000
2012	\$556,100,000	2012	\$550,328,000
2013	\$643,000,000	2013 ^{1/}	\$554,500,000
2014	\$561,500,000	2014	\$561,500,000
2015	\$577,000,000	2015	\$561,500,000
2016	\$577,000,000	2016	\$573,332,000
2017	\$585,372,000	2017	\$585,372,000
2018	\$597,629,000	2018	\$597,629,000
2019	\$610,208,000	2019	\$610,208,000
2020	\$623,017,000	2020	-

^{1/} FY 2013 Levels were reduced to reflect a .02% A-T-B rescission to all funds. In addition, Vehicle Safety General Fund were reduced by an additional .05% for sequestration.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

APPROPRIATIONS HISTORY

NATIONAL DRIVER REGISTER TRUST FUND - CONTRACT AUTHORITY

Limitation on Obligations & Liquidation of Contract Authority			
<u>Fiscal Year</u>	<u>Request</u>	<u>Fiscal Year</u>	<u>Enacted</u>
2011	\$4,170,000	2011	\$4,000,000
2012 ^{1/}	\$0	2012 ^{1/}	\$0
2013 ^{1/}	\$0	2013 ^{1/}	\$0
2014 ^{1/}	\$0	2014 ^{1/}	\$0
2015 ^{1/}	\$0	2015 ^{1/}	\$0
2016 ^{1/}	\$0	2016 ^{1/}	\$0
2017 ^{1/}	\$0	2017 ^{1/}	\$0
2018 ^{1/}	\$0	2018 ^{1/}	\$0
2019 ^{1/}	\$0	2019 ^{1/}	\$0
2020 ^{1/}	\$0	2020 ^{1/}	-

^{1/} For FY's 2012-2020, National Driver Register is eliminated as a separate account and combined with the Highway Safety Research and Development fund.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

**APPROPRIATIONS HISTORY
MODERNIZATION INITIATIVE
NATIONAL DRIVER REGISTER**

GENERAL FUND - APPROPRIATIONS

<u>Fiscal Year</u>	<u>Request</u>	<u>Fiscal Year</u>	<u>Enacted</u>
2011	\$2,530,000	2011	\$3,350,000
2012	\$0	2012	\$0
2013	\$0	2013	\$0
2014	\$0	2014	\$0
2015	\$0	2015	\$0
2016	\$0	2016	\$0
2017	\$0	2017	\$0
2018	\$0	2018	\$0
2019	\$0	2019	\$0
2020	\$0	2020	-

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EXHIBIT IV-1
RESEARCH, DEVELOPMENT & TECHNOLOGY
DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
BUDGET AUTHORITY
(In thousands of dollars)

Account Program	Classification (R, D, F, or A)	FY 2018 ACTUALS	FY 2019 ANNUALIZED CR	FY 2019 ENACTED	FY 2020 REQUEST	Annual Modal Research Plan
Vehicle Safety Programs (GF)		60,099	60,099	60,161	43,172	
Research and Analysis						
Crashworthiness		18,079	18,079	13,110	13,447	X
Safety Systems	R	8,131	8,131	4,874	5,210	X
Biomechanics	R	9,948	9,948	8,237	8,237	X
Advanced Safety Technologies		13,050	13,050	9,216	7,216	X
Advanced Driver Assistance Systems	R	10,912	10,912	8,301	6,301	X
Heavy Vehicle Safety Technologies	R	2,138	2,138	915	915	X
Alternative Fuels Vehicle Safety	R	1,738	1,738	674	674	X
Vehicle Electronics and Cybersecurity	R	15,000	15,000	15,000	3,469	X
Automated Driving Systems	R	-	-	10,000	7,000	X
Vehicle Research and Test Center	F	500	500	500	500	
Administrative Expenses						
Vehicle Safety (VS)	A	11,733	11,733	11,661	10,867	
Highway Safety Research & Development (TF)		15,883	15,883	15,750	18,906	
Highway Safety Programs						
Highway Safety Research <i>Technology Transfer</i>	R	11,748	11,748	11,748	14,948	X
Administrative Expenses						
Highway Safety (HS)	A	4,135	4,135	4,002	3,958	
Subtotal, Applied Research	R	59,614	59,614	59,748	46,754	
Subtotal, Development Research	D	-	-	-	-	
Subtotal, Research and Development Facilities	F	500	500	500	500	
Subtotal, Administration	A	15,868	15,868	15,663	14,825	
Total NHTSA		75,982	75,982	75,911	62,079	
Total Technology Transfer [non-add]		0	0	0	0	

Note: Totals may not add due to rounding.

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FY 2020 Budget Submission
National Highway Traffic Safety Administration
Information Technology Budget
Budget Authority
(\$000)

Vehicle Safety Account	FY 2018 Enacted	FY2019 Budget	FY 2020 Request
Agency IT			
<u>Office of the Chief Information Officer [Organization/Office/Program/PPA]</u>	\$ 4,484	\$ 4,716	\$ 3,887
Cybersecurity	\$ 1,215	\$ 952	\$ 2,441
Mission Critical IT Support System Applications	\$ 1,795	\$ 1,702	\$ 1,239
Infrastructure	\$ 945	\$ 1,586	\$ 57
IT Management	\$ 528	\$ 476	\$ 150
<u>Enforcement [Office/Program/PPA Subtotal]</u>	\$ 11,000	\$ 10,931	\$ 12,531
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 8,952	\$ 8,916	\$ 10,755
Infrastructure	\$ 1,007	\$ 1,009	\$ 936
IT Management	\$ 1,042	\$ 1,005	\$ 840
<u>Vehicle Safety Research and Analysis [Office/Program/PPA Subtotal]</u>	\$ 457	\$ 471	\$ 471
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 390	\$ 401	\$ 401
Infrastructure	\$ 53	\$ 55	\$ 55
IT Management	\$ 15	\$ 15	\$ 15
<u>Rulemaking [Office/Program/PPA Subtotal]</u>	\$ 2,809	\$ 2,555	\$ 2,555
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 2,517	\$ 2,259	\$ 2,259
Infrastructure	\$ 128	\$ 131	\$ 131
IT Management	\$ 165	\$ 165	\$ 165
<u>Office of Administrative & Management Services [Office/Program/PPA Subtotal]</u>	\$ 701	\$ 492	\$ 471
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 701	\$ 492	\$ 471
Infrastructure	\$ -	\$ -	\$ -
IT Management	\$ -	\$ -	\$ -
Subtotal: Agency IT	19,451	19,165	19,915
Working Capital Fund IT			
<u>Office of the Chief Information Officer [Organization/Office/Program/PPA]</u>	\$ 5,077	\$ 4,215	\$ 9,396
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT Support System Applications	\$ -	\$ -	\$ -
Infrastructure	\$ 5,077	\$ 4,215	\$ 9,396
IT Management	\$ -	\$ -	\$ -
Subtotal: Working Capital Fund IT	5,077	4,215	9,396
Vehicle Safety Account Total	\$ 24,528	\$ 23,381	\$ 29,311
Summary of IT & WCF Shared Services¹			
Commodity IT Shared Services WCF	\$ 5,077	\$ 4,215	\$ 9,396
Programmatic IT Shared Services WCF	\$ -	\$ -	\$ 2,441
NHTSA Programmatic IT	\$ 19,451	\$ 19,165	\$ 17,474
IT & WCF Shared Services Total	\$ 24,528	\$ 23,381	\$ 29,311

¹ The Office of the Chief Information Officer (OCIO) will continue to provide ICSA IT shared services and begin to consolidate ICSA programmatic IT investments centrally in FY 2020. As part of the consolidation of IT functions under the WCF, ICSA will transfer a total of 7 FTP supporting IT to the OCIO in FY 2020.

Highway Safety Research & Development (R&D) Account	FY 2018 Enacted	FY2019 Annualized CR	FY 2020 Request
Agency IT			
<i>Office of the Chief Information Officer [Organization/Office/Program/PPA]</i>	\$ 6,212	\$ 6,940	\$ 2,812
Cybersecurity	\$ 1,215	\$ 952	\$ 1,368
Mission Critical IT System Applications	\$ 2,350	\$ 2,164	\$ 1,239
Infrastructure	\$ 1,891	\$ 3,172	\$ 55
IT Management	\$ 756	\$ 652	\$ 150
<i>Research and Development [Office/Program/PPA Subtotal]</i>	<u>\$ 2,350</u>	<u>\$ 2,850</u>	<u>\$ 2,927</u>
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 457	\$ 457	\$ 535
Infrastructure	\$ 1,628	\$ 2,128	\$ 2,128
IT Management	\$ 265	\$ 265	\$ 265
<i>National Center for Statistics [Office/Program/PPA Subtotal]</i>	<u>\$ 16,980</u>	<u>\$ 20,691</u>	<u>\$ 17,214</u>
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 10,677	\$ 14,326	\$ 10,912
Infrastructure	\$ 2,799	\$ 2,826	\$ 2,799
IT Management	\$ 3,504	\$ 3,539	\$ 3,504
<i>Office of Administrative & Management Services [Office/Program/PPA Subtotal]</i>	<u>\$ 571</u>	<u>\$ 454</u>	<u>\$ 442</u>
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 421	\$ 304	\$ 292
Infrastructure	\$ -	\$ -	\$ -
IT Management	\$ 150	\$ 150	\$ 150
Subtotal: Agency IT	\$ 26,113	\$ 30,935	\$ 23,396
Working Capital Fund IT			
<i>Office of the Chief Information Officer [Organization/Office/Program/PPA]</i>	\$ 2,843	\$ 2,361	\$ 5,261
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT Support System Applications	\$ -	\$ -	\$ -
Infrastructure	\$ 2,843	\$ 2,361	\$ 5,261
IT Management	\$ -	\$ -	\$ -
Subtotal: Working Capital Fund IT	\$ 2,843	\$ 2,361	\$ 5,261
Highway Safety R&D Account Total	\$ 28,956	\$ 33,296	\$ 28,657
Summary of IT & WCF Shared Services¹			
Commodity IT Shared Services WCF	\$ 2,843	\$ 2,361	\$ 5,261
Programmatic IT Shared Services WCF	\$ -	\$ -	\$ 1,368
NHTSA Programmatic IT	\$ 26,113	\$ 30,935	\$ 22,028
IT & WCF Shared Services Total	\$ 28,956	\$ 33,296	\$ 28,657

¹ The Office of the Chief Information Officer (OCIO) will continue to provide ICSA IT shared services and begin to consolidate ICSA programmatic IT investments centrally in FY 2020. As part of the consolidation of IT functions under the WCF, ICSA will transfer a total of 7 FTP supporting IT to the OCIO in FY 2020.

Highway Traffic Safety Grants Account	FY 2018 Enacted	FY2019 Annualized CR	FY 2020 Request
Agency IT			
<i>Office of the Chief Information Officer [Organization/Office/Program/PPA]</i>	\$ 6,212	\$ 6,940	\$ 2,491
Cybersecurity	\$ 1,215	\$ 952	\$ 1,075
Mission Critical IT System Applications	\$ 2,350	\$ 2,164	\$ 1,239
Infrastructure	\$ 1,891	\$ 3,172	\$ 27
IT Management	\$ 756	\$ 652	\$ 150
<i>Regional Operations and Program Delivery [Office/Program/PPA Subtotal]</i>	<u>\$ 4,342</u>	<u>\$ 2,799</u>	<u>\$ 2,799</u>
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 3,827	\$ 2,282	\$ 2,282
Infrastructure	\$ 64	\$ 66	\$ 66
IT Management	\$ 450	\$ 450	\$ 450
<i>Office of Administrative & Management Services [Office/Program/PPA Subtotal]</i>	<u>\$ 309</u>	<u>\$ 217</u>	<u>\$ 207</u>
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT System Applications	\$ 309	\$ 217	\$ 207
Infrastructure	\$ -	\$ -	\$ -
IT Management	\$ -	\$ -	\$ -
Subtotal: Agency IT	\$ 10,863	\$ 9,956	\$ 5,497
Working Capital Fund IT			
<i>Office of the Chief Information Officer [Organization/Office/Program/PPA]</i>	\$ 2,234	\$ 1,855	\$ 4,134
Cybersecurity	\$ -	\$ -	\$ -
Mission Critical IT Support System Applications	\$ -	\$ -	\$ -
Infrastructure	\$ 2,234	\$ 1,855	\$ 4,134
IT Management	\$ -	\$ -	\$ -
Subtotal: Working Capital Fund IT	\$ 2,234	\$ 1,855	\$ 4,134
Highway Traffic Safety Grants Account Total	\$ 13,097	\$ 11,811	\$ 9,631
Summary of IT & WCF Shared Services¹			
Commodity IT Shared Services WCF	\$ 2,234	\$ 1,855	\$ 4,134
Programmatic IT Shared Services WCF	\$ -	\$ -	\$ 1,075
NHTSA Programmatic IT	\$ 10,863	\$ 9,956	\$ 4,422
IT & WCF Shared Services Total	\$ 13,097	\$ 11,811	\$ 9,631
Total IT Budget	\$ 66,581	\$ 68,486	\$ 67,600

Note: Totals may not add due to rounding.

FY 2020 Budget

National Highway Traffic Safety Administration Information Technology Budget Narrative

(Budget Authority in Thousands)

Budget Account	FY 2018 Enacted	FY 2019 Annualized CR	FY 2020 Request
Vehicle Safety	\$24,528	\$23,381	\$29,311
<i>Commodity IT SS WCF</i>	\$5,077	\$4,215	\$9,396
<i>Programmatic IT SS WCF</i>	0	0	\$2,441
<i>NHTSA Programmatic IT</i>	\$19,451	\$19,165	\$17,474
Highway Safety Research & Development (R&D)	\$28,956	\$33,296	\$28,657
<i>Commodity IT SS WCF</i>	\$2,843	\$2,361	\$5,261
<i>Programmatic IT SS WCF</i>	0	0	\$1,368
<i>NHTSA Programmatic IT</i>	\$26,113	\$30,935	\$22,028
Highway Traffic Safety Grants	\$13,097	\$11,811	\$9,631
<i>Commodity IT SS WCF</i>	\$2,234	\$1,855	\$4,134
<i>Programmatic IT SS WCF</i>	0	0	\$1,075
<i>NHTSA Programmatic IT</i>	\$10,863	\$9,956	\$4,422
Total	\$66,581	\$68,486	\$67,600

Note: Totals may not add due to rounding.

The National Highway Traffic Safety Administration (NHTSA) is requesting **\$67.60 million** in FY 2020 for information technologies (IT) that support the full spectrum of highway safety programs as well as the Department's initiative to transform and consolidate the management of IT solutions centrally by the Office of the Chief Information Officer (OCIO).

Commodity IT Shared Services through the WCF

OCIO will continue to provide NHTSA commodity IT shared services in FY 2020. NHTSA's share was based on actual commodity IT consumption in prior years as well as planned future consumption. OCIO, in collaboration with NHTSA, assumed a one-to-one cost estimate to transition all commodity IT to OCIO. NHTSA will only be charged for services rendered.

- **Commodity IT Shared Services** - NHTSA requests **\$9.40 million** from the Vehicle Safety account, **\$5.26 million** from the Highway Safety Research & Development account, and **\$4.13 million** from the Highway Traffic Safety Grants account for its share of Department investments in Cybersecurity and commodity information technology including voice, cable, and networks, desktop services, server operations, directory and messaging services, enterprise licensing and enterprise dashboards.

Programmatic IT Shared Services through the WCF

In addition to OCIO's responsibility to manage IT modernization planning, operations, compliance, governance, and cyber, OCIO will begin to transfer NHTSA programmatic IT investments in FY 2020. OCIO, in conversation with NHTSA, identified specific programmatic IT systems for transfer that focus on general support systems, IT management and registration. NHTSA will only be charged for services rendered.

- **Programmatic IT Shared Services** – NHTSA requests **\$2.44 million** from the Vehicle Safety account, **\$1.37 million** from the Highway Safety Research & Development account, and **\$1.08 million** from the Highway Traffic Safety Grants account to contribute to OCIO's consolidation, cyber compliance, and modernization of mission support IT systems and applications. This includes registrations systems that collect the required information to register an entry and processing the collected information to provide a result to the program owner.

Full Time Equivalent

- **Full Time Equivalent** – As part of the consolidation of IT functions under the WCF, NHTSA will transfer **7 FTE** supporting IT to the OCIO in FY 2020.

NHTSA IT Investments

The following IT investments will be maintained by NHTSA in FY 2020:

- **Artemis**: NHTSA requests **\$7.27 million** for operations and maintenance of the modernized Artemis. Artemis is the repository for safety defect information including public safety complaints, manufacturer-submitted data, defects investigations, and safety recalls. This modernization effort will allow the Office of Defects Investigation (ODI) processes to work more efficiently and effectively and will facilitate a consistent investigative process by ODI that will enhance the agency's ability to disseminate timely safety information to the public.
- **Crash Data Acquisition Network (CDAN)**: NHTSA requests **\$9.79 million** for operation and maintenance of this mission critical system. CDAN is a recently completed major IT investment that is used to collect crash data and provide data analysis on a national level. The modernization of CDAN was necessary to accommodate a significant increase in volume and complexity of collected crash data.
- **Grants Management Solutions Suite**: NHTSA requests **\$2.80 million** for its ongoing investment to support the management and oversight of NHTSA's highway safety grant program funds, which account for approximately two-thirds of the agency's annual budget. This modernized system will replace grant application and reporting processes that are largely paper-based. It will also allow for enhanced safety performance measurement and reporting by States.
- **Corporate Information Factory (CIF)**: NHTSA requests **\$7.01 million** to invest in enhancement efforts. The CIF allows for enhanced and expanded capabilities in the areas of analysis, reporting, data management, workflow, and records management across the

agency. The business intelligence capabilities of the tool enable faster, more reliable results from data sourced by multiple systems. Notably, ODI leverages CIF capabilities to provide more transparent data and reduce the time required to identify new defect trends that may occur with the development and implementation of new technology.

Information Technology System Support - NHTSA requests **\$17.05 million** for routine support and maintenance for the following systems: National Sobriety Testing Resource Center, Motor Vehicle Importation, National Drivers Registry, Web Systems, Crash Test Database, IT Security & Compliance, IT Management, Corporate Average Fuel Economy, and National Emergency Medical Services Information System.

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