

Federal Communications Commission



Fiscal Year 2019
Budget In Brief
February 2018

Table of Contents

Fiscal Year 2019 Proposed Appropriation Language	8
Legislative Proposals	9
Summary of FYs 2017 - 2019 FTEs and Funding by Bureaus and Offices.....	10
FTEs - Historical and Estimated	11
Summary of Changes - Regulatory Fees (Offsetting Collections).....	12
Narrative Explanation of Changes - Salaries and Expenses - Regulatory Fees	13
Agency Reform Plan.....	17
Honors Engineer Program.....	18
National Broadband Map – Wireline	18
Office of Inspector General Narrative	19
Universal Service Fund Activities and Costs.....	19
Status of FCC Headquarters Move	22
Spectrum Auctions Program - Explanation of Requested Change	24
Spectrum Auctions Program	25
Spectrum Auctions Activities	31
Summary of Distribution of Resources - Spectrum Auctions Program.....	32
Spectrum Auctions Expenditures Report.....	32
FTEs by Resource Category	36
Spectrum Auctions and Collections.....	37
Spectrum Auctions Program – Collections vs. Expenditures	37

This page is intentionally left blank

INTRODUCTION AND SUMMARY OF REQUEST

The Federal Communications Commission (FCC or Commission) is pleased to present its fiscal year (FY) 2019 budget request.

The FCC is an independent regulatory agency of the United States Government. The FCC is charged with regulating interstate and international communications by radio, television, wire, satellite, and cable. The Commission also regulates telecommunications and advanced communication services and video programming for people with disabilities, as set forth in various sections of the Communications Act.

As specified in section 1 of the Communications Act of 1934, as amended, the FCC's mission is to "make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."

¹ In addition, section 1 provides that the Commission was created "for the purpose of the national defense" and "for the purpose of promoting safety of life and property through the use of wire and radio communications."²

The FCC is directed by five Commissioners appointed by the President and confirmed by the Senate for five-year terms, except when filling the unexpired term of a previous Commissioner. Only three Commissioners can be from the same political party at any given time. The President designates one of the Commissioners to serve as Chairman.

The FCC's vision is to develop a regulatory environment to encourage the private sector to build, maintain, and upgrade next-generation networks so that the benefits of advanced communications services are available to all Americans. The FCC will work to foster a competitive, dynamic and innovative market for communications services through policies that promote the introduction of new technologies and services and ensure that Commission actions promote entrepreneurship and remove barriers to entry and investment. The Commission will also strive to develop policies that promote the public interest, improve the quality of communications services available to those with disabilities, and protect public safety. Furthermore, in FY 2019, the FCC will continue to implement its Agency Reform Plan to deliver on the needs of today and the future in a more proactive and efficient manner. Through these reform efforts, the Commission will develop and implement reforms that focus the Commission on effectively and efficiently leveraging human capital to deliver on programs that are the highest need to citizens and where there is a unique Federal role.

For FY 2019, the Commission is requesting the budget and personnel amounts that are summarized in the bullets and table below:

¹ 47 U.S.C. § 151.

² *Id.*

- The Commission requests \$333,118,000 in budget authority from regulatory fee offsetting collections. This request represents a decrease of \$21,170,568 or 6.0 percent from the FY 2018 annualized continuing appropriation level of \$354,288,568. This difference includes a net decrease adjustment to the base of \$12,635,568 and one-time requests of \$8,535,000.
- The Commission requests \$112,734,000 in budget authority for the spectrum auctions program. This request represents a decrease of \$3,471,453 or 3 percent from the FY 2018 annualized continuing resolution level of \$116,205,453. To date, the spectrum auctions program has generated over \$114.6 billion for government use, including funding for such programs as the FirstNet (First Responders Network), Next Generation 911 (NG911), and deficit reduction. While raising over \$114.6 billion, the total cost of the auctions program have been less than \$1.9 billion.
- In creating a lean, accountable, more efficient Commission that works for the American people, the Commission requests 1,448 Full Time Equivalents (FTEs) funded by budget authority from both the regulatory fees offsetting collections and the spectrum auctions program. This FTE level is the same as the FY 2018 level request. With this FTE level, the Commission will continue to meet its mission demands in FY 2019.

(Dollars in Thousands)

	FY 2018		FY 2019		Change in Request	
	FTEs ¹	Annualized CR Amount	FTEs ¹	Congressional Request	FTEs ¹	Amount
Budget Authority - Offsetting Collections:						
Regulatory Fees - Commission	1,388	\$343,269	1,388	\$322,054	0	-\$21,215
Regulatory Fees - Office of Inspector General (OIG)	60	\$11,020	60	\$11,064	0	\$44
Subtotal - Offsetting Collections	1,448	\$354,289	1,448	\$333,118	0	-\$21,171
Budget Authority - Other Offsetting Collections:						
Economy Act Reimbursable Agreements		\$4,000		\$4,000		\$0
Auction Cost Recovery Reimbursement - Commission		\$116,064		\$112,589		-\$3,475
Auction Cost Recovery Reimbursement - OIG		\$141		\$145		\$4
Subtotal - Other Offsetting Collections		\$120,205		\$116,734		-\$3,471
Subtotal: Offsetting Collections	1,448	\$474,494	1,448	\$449,852	0	-\$24,642
Other Budget Authority:²						
Credit Program Account ³		\$100		\$50		-\$50
Universal Service Fund Oversight - OIG ⁴		\$1,548		\$723		-\$825
Subtotal: Other Budget Authority		\$1,648		\$773		-\$875
Total Gross Proposed Budget Authority	1,448	\$476,142	1,448	\$450,625	0	-\$25,517

¹The FTE numbers shown here include auction FTEs. Refer to page 36 for a breakdown of FTEs between non-auction (Regulatory Fees) and auction.

²The Middle Class Tax Relief and Job Creation Act of 2012 (Act) mandated that the Commission reimburse reasonable channel relocation costs incurred by those qualified TV Broadcasters that will be affected by spectrum relocation. The Act also gave the Commission the authority to use \$1.75 billion from Incentive Auction revenues to reimburse TV Broadcasters for relocation costs. The TV Broadcaster Relocation Fund is capped at \$1.75 billion. This budget authority is not represented in the above schedule to provide a better historical comparison of the components of the FCC's regular budgetary requests.

³A permanent indefinite appropriation for credit reform that becomes available pursuant to a standing provision of law without further action by Congress.

⁴Authorized transfer by Congress in FY 2008 from the Universal Service Fund (USF) to the FCC Office of Inspector General (OIG) to fight fraud, waste, and abuse in the USF programs. The amount shown represents carryover of unobligated funds. These funds are available to OIG until expended.

In furtherance of these objectives and the FCC's mission, the FY 2019 budget request will be used to support the following updated Strategic Goals for FY 2019:

Strategic Goal 1: Closing the Digital Divide

Develop a regulatory environment to encourage the private sector to build, maintain, and upgrade next-generation networks so that the benefits of advanced communications services are available to all Americans. Where the business case for infrastructure investment doesn't exist, employ effective and efficient means to facilitate deployment and access to affordable broadband in all areas of the country.

Strategic Goal 2: Promoting Innovation

Foster a competitive, dynamic, and innovative market for communications services through policies that promote the introduction of new technologies and services. Ensure that the FCC's actions and regulations reflect the realities of the current marketplace, promote entrepreneurship, expand economic opportunity, and remove barriers to entry and investment.

Strategic Goal 3: Protecting Consumers and Public Safety

Develop policies that promote the public interest by providing consumers with freedom from unwanted and intrusive communications, improving the quality of communications services available to those with disabilities, and protecting public safety.

Strategic Goal 4: Reforming the FCC's Processes

Modernize and streamline the FCC's operations and programs to increase transparency, improve decision-making, build consensus, reduce regulatory burdens, and simplify the public's interactions with the agency.

Additional Useful Information to Better Understand the Budget Request

Below is some additional useful information for readers to better understand the information presented in the Commission's budget request:

- FY 2017 numbers presented are actual numbers.
- FY 2018 numbers presented are same as those submitted in the Commission's FY 2018 Congressional request in May 2017, except for the Office of the Managing Director, which includes the additional amount calculated using the Commission's FY 2018 continuing resolution level.
- There is no change in the FTE numbers from FY 2018 Congressional request numbers submitted in May 2017.
- FTE numbers listed for each Bureau and Office for FY 2019 reflect the continuation of reduced hiring through the end of FY 2018.
- The Commission's Lease for Portals II (headquarters building) expired on October 15, 2017, and the Commission does not yet know the amount of rent it will pay for this facility in FYs 2018 and 2019. As such, the Commission has included an estimate for rent for FY 2019 that shows only the inflationary increase of approximately 2 percent from the amount submitted for FY 2018.

Fiscal Year 2019 Proposed Appropriation Language

For necessary expenses of the Federal Communications Commission, as authorized by law, including uniforms and allowances therefor, as authorized by 5 U.S.C. 5901–5902; not to exceed \$4,000 for official reception and representation expenses; purchase and hire of motor vehicles; special counsel fees; and services as authorized by 5 U.S.C. 3109, \$333,118,000, to remain available until expended: *Provided*, That \$333,118,000 of offsetting collections shall be assessed and collected pursuant to section 9 of title I of the Communications Act of 1934, shall be retained and used for necessary expenses and shall remain available until expended: *Provided further*, That the sum herein appropriated shall be reduced as such offsetting collections are received during fiscal year 2019 so as to result in a final fiscal year 2019 appropriation estimated at \$0: *Provided further*, That any offsetting collections received in excess of \$333,118,000 in fiscal year 2019 shall not be available for obligation: *Provided further*, That remaining offsetting collections from prior years collected in excess of the amount specified for collection in each such year and otherwise becoming available on October 1, 2018, shall not be available for obligation: *Provided further*, That, notwithstanding 47 U.S.C. 309(j)(8)(B), proceeds from the use of a competitive bidding system that may be retained and made available for obligation shall not exceed \$112,734,000 for fiscal year 2019: *Provided further*, That, of the amount appropriated under this heading, not less than \$11,064,000 shall be for the salaries and expenses of the Office of Inspector General.

Legislative Proposals

The Administration is proposing legislative changes in the President's FY 2019 Budget that pertain to the FCC. These proposals are designed to improve spectrum management and represent sound economic policy.

Spectrum License Fee Authority

To promote efficient use of the electromagnetic spectrum, the Administration proposes to provide the FCC with new authority to use other economic mechanisms, such as fees, as a spectrum management tool. The FCC would be authorized to set user fees on unauctioned commercial spectrum licenses based on spectrum-management principles. Fees would be phased in over time as part of an ongoing rulemaking process to determine the appropriate application and level for fees. Fee collections are estimated to begin in 2019 and total \$4.0 billion through 2028.

Spectrum Auctions

The Spectrum Pipeline Act of 2015 requires 30 MHz of spectrum to be reallocated from Federal use to non-Federal use or shared Federal and non-Federal use, or a combination thereof; requires the FCC to auction this spectrum by 2024; and extends the FCC's auction authority only to allow auction of this spectrum. To facilitate this, the Act also authorizes the use of funds from the Spectrum Relocation Fund for research and development and planning activities by Federal entities that are expected to increase the probability of relocation from or sharing of Federal spectrum and that meet other requirements. The Budget proposes to require the auction of additional spectrum by 2028 and further extend the FCC's auction authority solely to allow this auction to proceed. Auction proceeds are expected to reach \$6.0 billion through 2028.

Auction or Assign via Fee 1675-1680 Megahertz

The Budget proposes that the FCC either auction or use fee authority to assign spectrum frequencies between 1675-1680 megahertz for flexible use by 2020, subject to sharing arrangements with Federal weather satellites. Currently, the spectrum is being used for radiosondes (weather balloons), weather satellite downlinks, and data broadcasts, and the band will also support future weather satellite operations. The National Oceanic and Atmospheric Administration (NOAA) began transitioning radiosondes operations out of the band in 2016 as part of the Advanced Wireless Services 3 (AWS-3) relocation process. If this proposal is enacted, NOAA would establish limited protection zones for the remaining weather satellite downlinks and develop alternative data broadcast systems for users of its data products. Without this proposal, these frequencies are unlikely to be auctioned and repurposed to commercial use. The proposal is expected to raise \$600 million in receipts over 10 years.

Summary of FYs 2017 - 2019 FTEs and Funding by Bureaus and Offices

(Dollars in Thousands)

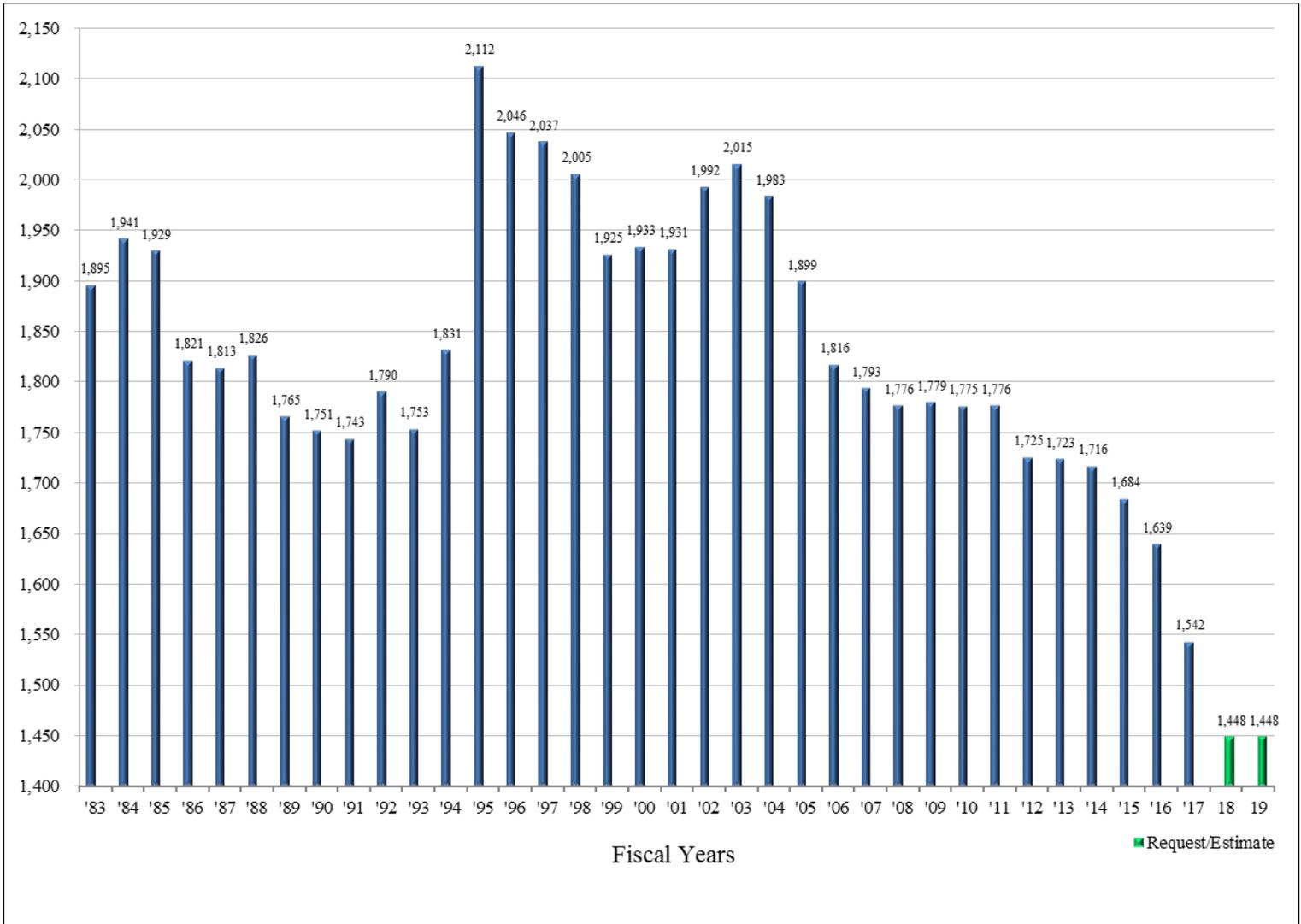
Bureaus and Offices	FY 2017		FY 2018		FY 2019	
	FTEs	Actuals	FTEs	Annualized CR Amount	FTEs	Congressional Request
Chairman and Commissioners	15	\$3,116	20	\$4,048	20	\$4,128
Consumer & Government Affairs Bureau	136	\$23,414	126	\$22,061	118	\$20,804
Enforcement Bureau	203	\$39,203	189	\$38,609	187	\$39,325
International Bureau	98	\$18,702	92	\$18,090	90	\$18,098
Media Bureau	160	\$24,172	149	\$23,132	149	\$23,590
Public Safety & Homeland Security Bureau	105	\$19,564	93	\$17,726	98	\$19,178
Wireless Telecommunications Bureau	204	\$19,497	192	\$16,235	190	\$16,556
Wireline Competition Bureau	168	\$31,725	155	\$29,927	160	\$31,020
Office of Administrative Law Judges	4	\$543	4	\$503	4	\$513
Office of Communications Business Opportunities	7	\$1,242	7	\$1,282	7	\$1,307
Office of Engineering & Technology	77	\$14,610	72	\$13,807	73	\$14,525
Office of General Counsel	77	\$15,390	72	\$15,982	68	\$15,249
Office of Legislative Affairs	9	\$1,571	7	\$1,312	8	\$1,502
Office of Managing Director	198	\$100,075	178	\$134,957	184	\$110,594
Office of Media Relations	13	\$2,505	11	\$2,137	11	\$2,179
Office of Strategic Planning & Policy Analysis	16	\$2,674	15	\$2,538	14	\$2,424
Office of Workplace Diversity	6	\$812	6	\$924	7	\$1,062
Subtotal	1,496	\$318,814	1,388	\$343,269	1,388	\$322,054
Office of Inspector General	46	\$7,638	60	\$11,020	60	\$11,064
TOTAL	1,542	\$326,452	1,448	\$354,289	1,448	\$333,118

Note: The FTE numbers shown above for FY 2018 represent the same FTE numbers submitted in the Commission's FY 2018 request to Congress in May 2017.

The Commission is responsible for the overall management, oversight, and administration of the Universal Service Fund (USF), including all USF policy decisions. All USF related activities are currently funded by regulatory fees. The Universal Service Fund Activities and Costs section on pages 19 through 22 provides more details related to the Commission's USF activities and related costs.

FTEs - Historical and Estimated

Fiscal Years 1983 – 2019



Summary of Changes - Regulatory Fees (Offsetting Collections)

(Dollars in Thousands)

	FY 2018 Annualized CR Amount	FY 2019 Congressional Request	TOTAL NET CHANGE	
			Amount	Percent
Offsetting Collections:				
Offsetting Collections - Commission	\$343,269	\$322,054	-\$21,215	
Offsetting Collections - Office of Inspector General (OIG)	\$11,020	\$11,064	\$44	
Total Spending Authority - Offsetting Collections	\$354,289	\$333,118	-\$21,171	-6.0%
Full-Time Equivalents (FTEs) - Commission ¹	1,388	1,388	0	
FTEs - Office of Inspector General	60	60	0	
Total Full-Time Equivalents	1,448	1,448	0	0.0%
Explanation of Changes - Offsetting Collections				
FY 2017 Appropriation:				
Salaries and Expenses		\$339,844		
One-Time Request - Headquarters (HQs) Move		\$16,867		
Total FY 2017 Appropriated & FY 2018 Continuing Resolution Base			\$356,711	
FY 2018 Continuing Resolution (CR) Adjustment:				
FY 2018 CR Mandatory Reduction for Operations (0.6791%)		-\$2,422		
FY 2018 Annualized CR Amount			\$354,289	
FY 2018 Congressional Request Adjustments:				
One-Time Request - HQs Move		-\$16,867		
Salary & Non-Salary Inflationary Increases		\$6,447		
Reduction in Funding - Personnel Cost ²		-\$16,653		
Reduction in Funding - Non-Personnel Cost ²		-\$5,181		
Subtotal			-\$32,254	
FY 2019 Base			\$322,035	
FY 2019 Non-Salary Inflationary Increases to Base:³				
Commission		\$1,904		
Office of Inspector General		\$44		
Subtotal			\$1,948	
FY 2019 Adjustment To Base:				
IT - Public Safety Answering Points (PSAP) - Do Not Call Registry			\$600	
FY 2019 Adjusted Base Before One-Time Requests			\$324,583	
FY 2019 New Investments - One-Time Requests:				
IT - Cloud Services and Systems Modernization		\$4,619		
IT - Cloud Services and Applications Modernization		\$3,666		
IT - Public Safety Answering Points (PSAP) - Do Not Call Registry		\$250		
Subtotal			\$8,535	
FY 2019 Total Request			\$333,118	
TOTAL NET CHANGE			-\$21,171	-6.0%

¹Includes spectrum auctions program FTEs.

²The initial amount was decreased up to the FY 2018 CR Mandatory Reduction Amount for Operations.

³Utilized the FY 2018 inflationary rate of 1.9% for the first quarter of FY 2019 and FY 2019 inflationary rate of 2.0% for the remaining three quarters of FY 2019.

Narrative Explanation of Changes - Salaries and Expenses - Regulatory Fees

Salaries and Inflationary Increases to Base: (\$1,948,000)

1. **Non-Salary Increases** – The request of \$1,948,000 provides expected inflationary increases for space rentals (GSA and non-GSA facilities), phones, utilities, printing and reproduction services, contractual services, supplies, travel, training, and other expenses. The total non-salary increases includes related increases for OIG, which total \$44,000. This increase is developed using the same inflationary rates for personnel compensation and benefits recommended by Office of Management and Budget (OMB). In its budget guidance for FY 2019, OMB recommended that agencies use two percent for personnel compensation and benefits.
2. **Personnel Compensation and Benefits** – Pursuant to OMB guidance the request does not include increases for personnel compensation and benefits (salary increases) of \$4,391,400. As a result, the Commission will absorb the salary increases of \$4,391,000 in FY 2019 out of the Commission's base budget. The total salary increases related to OIG is \$174,000, which is included in the aforementioned total amount.

Other Increase to Base: (\$600,000)

1. IT Modernization – Adjustment to Base – PSAP - Do Not Call Registry (\$600,000)

Section 6507 of the Middle Class Tax Relief and Job Creation Act of 2012 requires the Commission to create a Do-Not-Call registry for telephone numbers used by Public Safety Answering Points (PSAPs) and to prohibit the use of automatic dialing equipment to contact those numbers. PSAPs are facilities that have been designated to receive emergency calls and route them to emergency service personnel. On October 17, 2012, the Commission released a Report and Order that announced new rules to establish a Do-Not-Call Registry for telephone numbers used by facilities designated to receive emergency calls and route them to emergency service personnel (PSAPs). Under the statute, verified PSAP administrators or managers must be able to place into the PSAP registry telephone numbers that are used for the provisioning of emergency services or for communications between public safety agencies. In addition to the FY 2019 new investment request listed above for the PSAP – Do Not Call Registry, the FCC is requesting these funds as an adjustment to the FCC's base for the sustainment of the PSAP – Do Not Call Registry once it is created.

FY 2019 New Investments – One-Time Requests: (\$8,535,200)

1. Information Technology (IT) Modernization & Implementation

The Commission has made tremendous strides in modernizing its IT infrastructure and legacy dependent applications to better meet its mission mandated by Congress; however, many of the Commission's systems and applications are still relying on outdated legacy technologies and aging physical infrastructure. Many of the technologies these systems and applications are built on are no longer supported by vendors, leaving the requisite skillsets and expertise to

operate and maintain this outdated technology both difficult to find and costly. Furthermore, the highly-customized nature of these systems and applications makes any necessary enhancements expensive, cumbersome, slow to implement, and resource-intensive, resulting in a high total cost of ownership. Continued use of IT systems and applications built on outdated technology also significantly increases cybersecurity risks and increases risks to the FCC's ability to deliver on its mission on a timely basis.

Since FY 2014, the Commission has modernized several of its outdated legacy based systems including the Emergency Alert System Test Reporting System (ETRS), Consumer Help Center (CHC), and Network Outage Reporting System (NORS). These modernization successes have resulted in a dramatic technology shift that has allowed the Commission to move away from on premises and custom developed systems to cloud-based platform solutions. These modernization efforts also have been successful in empowering the Commission by employing modern technology solutions to transform outdated legacy based applications into more resilient, secure, and highly available cloud-based applications.

Building on our successes, the momentum of FCC IT modernization needs to continue to better deliver on mission. By continuing to modernize and/or migrate outdated technology based systems and applications to cloud-based environments, the Commission will enhance access to real-time data for decision making, reduce operating and maintenance (O&M) costs, reduce time and resources required to make application changes and enhancements, and provide the ability to scale to meet increased demand loads such as public filing surges. Additionally, the number of security vulnerabilities that currently exist in these systems will be largely eliminated as they are moved to modern cloud-based technology platforms.

By modernizing the Commission's IT portfolio using cloud platforms, the overall security posture, resiliency and availability of the FCC application portfolio will be improved. The use of cloud platforms increases the unfettered access to the Commission's applications as they are housed at multiple, highly-available, disaster tolerant data centers. Further, the responsibility of on-going vulnerability remediation and patching will be transitioned to FEDRAMP certified cloud platform vendors, which reduces the resources required to perform these tasks per application. The use of FEDRAMP certified cloud platform vendors shifts the burden of having to invest in the technology and workforce to meet the critical and dynamic security requirements and provides the best-in-class environment the Commission and its stakeholders need to rely on.

Other key benefits of modernizing and/or moving outdated technology based systems and applications to the modern cloud-based technologies include:

- Reduction of security vulnerabilities by eliminating outdated legacy technologies.
- Reuse of enterprise services and solutions to reduce development and maintenance cost.
- Improved cycle time for system enhancements or changes required to keep pace with the Commission rules and industry needs by leveraging Platform as a Service (PaaS) and Software as a Service (SaaS) capabilities.
- Quickly adapting to changing network requirements.
- Reduce Commission's dependence on physical desktop computers with potential reductions in hardware, software licensing, and support costs.

- Creation of core enterprise services to reduce development time and O&M costs for future data collection efforts.
- Ability to scale application capacity up or down to balance demand and cost factors.

To realize these benefits, the Commission requests new investments for the following:

a. Cloud Services and “System” Modernization (\$4,619,000)

By modernizing and migrating outdated legacy based systems listed below to a cloud-based environment, the Commission expects to save approximately \$945,000 in costs per year as follows: database administration O&M support (\$220,000), infrastructure costs (\$75,000), developer support (\$350,000), and desktop infrastructure (\$300,000).

- **Disaster Information Reporting System (DIRS):** Collects information on the status of wireline, wireless, broadcast, and Cable Television (CATV) systems during major disasters, such as hurricanes. This information is essential for government situational awareness during a major disaster and is used by both the FCC and the Department of Homeland Security. The large majority of the current DIRS filings are done using the application interface (API) and batch filing processes. The modernized DIRS will vastly improve these capabilities by implementing modern API technologies and improved batch filing services like those implemented during the Network Outage Reporting System (NORS) modernization. The new DIRS will also feature a common look and feel, along with the ability to use the same login credentials, as NORS for enhanced user experience. Additionally, modernizing DIRS will resolve numerous issues related to the legacy technology including higher support and maintenance costs, security vulnerabilities, and Section 508 compliance. These enhancements in filing automation, supportability, security, compliance, and end-user experience will increase the effectiveness for both public filers and FCC support staff.
- **Electronic Tariff Filing System (ETFS):** Collects official tariffs and associated documents submitted by incumbent Local Exchange Carriers (LEC's) in lieu of filing paper copies with the FCC. The public may also use ETFS to view these documents online or to file certain official tariff-related documents.
- **The Office of Engineering and Technology's Frequency Assignment System (OFACS):** Submits, stores, updates, and exchanges information with the National Telecommunications and Information Administration (NTIA) as part of the frequency assignment coordination process.
- **International Bureau Filing System (IBFS):** Provides online applications for satellite stations, submarine cable landing licenses, and foreign carrier notifications. Contains applications, supporting documents, pleadings, comments, public notices, Commission actions, and final authorizations.
- **Software Defined Network (SDN):** Utilizes computing networking technologies that enable administrators to initialize, control, change, and manage network behavior dynamically to support network requirements of cloud-based environments while abstracting the physical services.
- **Desktop as a Service (DaaS):** Leverages cloud-based platforms and technologies to deliver the next generation of secure and scalable user computing environments and

services.

b. Cloud Services and “Application” Modernization (\$3,666,200)

By modernizing the outdated technology based applications listed below and/or moving them to a cloud-hosted environment, the Commission expects to save approximately \$545,000 per year as follows: database administration O&M support (\$220,000), developer support (\$250,000), and infrastructure costs (\$75,000).

- **Broadband Form 477:** Collects information about broadband connections to end-user locations, wireline and wireless local telephone services, and interconnected Voice-over-Internet-Protocol (VoIP) services. The current FCC Form 477 filing system has been unable to keep pace with the filing demands and surge patterns associated with the semi-annual filing deadlines. The system uses a multi-process queue design that allows the submissions to be run through a series of checks that include virus scans and upload validations. Unfortunately, the system has frequently experienced capacity issues that result in queue backups during peak filing times. Despite numerous efforts to tune the system, and improve manual monitoring, the system still regularly falters during the peak load associated with the semi-annual filing deadlines. For filers, an unstable system, that is time-consuming to navigate, increases the cost of compliance, making new filers less likely to comply and giving current filers a disincentive to revise submissions. Meanwhile, FCC resources are wasted monitoring the filing interface and engaging with upset filers rather than analyzing the data. Ultimately, the system’s inability to keep pace with the load demand continues to result in instability issues that impose a high cost on filers, promotes low-quality data, and inefficiently uses FCC resources. Modernizing the system should address the stability issues, improve the user interface, and provide a platform that’s able to support future enhancements to the Form 477 filing process.
- **Customer Relationship Management Tool:** Manages data related to external stakeholder interactions, contracts, and relationships to improve engagement productivity and partner relationships.
- **Electioneering Communications Database (ECD):** Performs analysis of the Media Bureau’s Consolidated Database System as well as cable and satellite subscriber data with respect to current Census Bureau population statistics for Congressional Districts, States and Zip Code data.
- **Schedule S:** Collects technical and operational data associated with satellite licenses.
- **Urban Rate Survey (URS):** Collects survey data of the fixed voice and broadband service rates offered to consumers in urban areas.
- **Video Program Distributor (VPD):** Gathers company contact information for closed captioning complaints to assist consumers in reporting closed captioning problems or in filing complaints.

2. Public Safety Answering Point (PSAP) – Do-Not-Call Registry (\$250,000)

Section 6507 of the Middle Class Tax Relief and Job Creation Act of 2012 requires the Commission to create a Do-Not-Call registry for telephone numbers used by Public Safety

Answering Points (PSAPs) and to prohibit the use of automatic dialing equipment to contact those numbers. PSAPs are facilities that have been designated to receive emergency calls and route them to emergency service personnel. On October 17, 2012, the Commission released a Report and Order that announced new rules to establish a Do-Not-Call Registry for telephone numbers used by facilities designated to receive emergency calls and route them to emergency service personnel (PSAPs). These funds will be used to develop the Do-Not-Call Registry and place it into operation. Under the statute, verified PSAP administrators or managers must be able to place into the PSAP registry telephone numbers that are used for the provision of emergency services or for communications between public safety agencies.

Agency Reform Plan

Plan to Maximize Employee Performance under OMB Memo -17-22, Comprehensive Plan for Reforming the Federal Government and Reducing the Federal Civilian Workforce.

The Commission is required to develop a plan to maximize employee performance and design a workforce to meet current and future needs. The Commission is undertaking a comprehensive effort to:

- Review and update formal agency policy.
- Provide transparency around the performance improvement plan process.
- Ensure managers and supporting human resources staff are appropriately trained.
- Ensure accountability in manager performance plans, and establish real-time manager support mechanisms.

The FCC will implement a plan that will support managers and supervisors in managing employee performance and address conduct and performance issues. In doing so, the Commission will:

- Review steps for addressing poor performance and develop plans to limit the use of administrative leave.
- Ensure clear guidance on the use of performance improvement plans (PIPs), maintain data on PIPs including the number of employees placed on them and the number who successfully improve performance.
- Strengthen training on employee relations, performance and conduct for all Senior Executive Service (SES) employees, supervisors and managers.
- Automate the performance management system and provide clear guidance to enhance accountability within the FCC's pass/fail performance plans.
- Ensure that the Labor and Employee Relations team is adequately staffed to provide prompt and expert guidance and support and develop templates to facilitate the taking of action for performance and/or conduct based issues.

Workforce Actions

The Commission has identified and implemented actions to consolidate support functions, reduce costs and increase efficiency in the provision of Human Resources and administrative services

across the agency. At the end of FY 2017 the Commission offered a voluntary early retirement authority (VERA) and voluntary separation incentive payments (VSIP) for certain staff, and 28 staff took this offer. These Workforce Actions are intended to identify cost savings and reduce administrative staff that are duplicative and are no longer necessary while minimizing human resource processing requirements.

High Level Agency Reform Plan

The FCC announced the creation of an Office of Economics and Analytics to coordinate the contributions of economists and data professionals from around the FCC and better incorporate their analysis into the FCC's policymaking process. By ensuring that economic analysis is incorporated into policy work throughout the decision making process, including the earliest stages, the Commission will ensure that it assesses the costs and benefits of its proposed actions and is able to establish a mechanism to measure the ongoing effectiveness of adopted approaches. The new Office will be charged with conducting Regulatory Impact Analysis and informing FCC policy making as well as undertaking long-term research on emerging market conditions and advances in communications technology, including implications for innovation and effects on the economy. The new Office will streamline the FCC's information collection procedures and uses of data and identify duplicative collections, thus substantially reducing financial and human capital burdens associated with unnecessary collections.

Honors Engineer Program

The FCC is establishing an Honors Engineer Program to recruit new and recent engineering school graduates to the FCC and into the field of communications. The FCC is seeking to attract and hopefully hire up to five new engineers in FY 2019 through this program. Engineers at the FCC work on cutting-edge issues in the communications and high-tech arenas. Areas of work at the FCC requiring engineering expertise may involve solving technical challenges involving the deployment of next-generation wireless systems, facilitating efforts to deploy broadband technologies, or identifying technologies to improve access to communications services for Americans with disabilities. Selection for participation in the Honors Engineer Program is expected to be highly competitive as the FCC will utilize this program to assist its efforts to hire and retain top engineering talent to meet its long-term workforce needs.

National Broadband Map – Wireline

Modernization of the National Broadband Map (NBM) will initially focus on Fixed Broadband. Key features of the NBM will include both map and chart visualizations of the FCC Form 477 broadband data by location/area, comparison of providers, and comparison of areas. These features will reinstate the map as a key resource of broadband deployment information for consumers, policymakers, researchers, economists, and others. The data will be made available for download. This will be a complete modernization that leverages cloud offerings to host the web front end and serve up the underlying map title sets. Additionally, the map will be integrated into the FCC's redesigned webpage to maintain a consistent user experience.

Operations and Maintenance costs include the general upkeep of the system, remediation of defects, compliance with security requirements (patches, controls, etc.), and minor system refinements. It also includes a refresh of the underlying Form 477 data approximately every six months and the census data on an as needed basis. Finally, it includes the cloud services required to host the user interface and underlying map titles. The reprogram funding for this project was approved by Senate and House of Representatives on July 27, 2017, and July 28, 2017, respectively. This project is planned to be completed in the second quarter of FY 2018.

Office of Inspector General Narrative

The Office of the Inspector General's (OIG) workload continues to increase in the areas of audit and investigation and administration. Currently OIG only takes on top-level investigation cases and high priority financial, information technology and program audits, inspections and assessments. The Office keeps focus on increasing mission responsibility and ensuring appropriate staff levels to keep pace with the workload. The OIG has been increasing its Full Time Equivalent (FTE) staff over the past few budget years and this recruitment effort has provided OIG greater capability to maintain its mission and increase the number and complexity of audits investigations completed.

The OIG FY 2019 budget request of \$11,064,000 includes a non-salary inflationary increase of a \$44,000 over the FY 2018 requested level of \$11,020,000.

OIG audits and inspections help FCC management identify internal control weaknesses and program risks, including fraud, waste and abuse; and recommend corrective actions to safeguard public funds and improve program outcomes. Including audits and other projects mandated by laws and regulations, Office of Audit (OA) plans to complete more than 50 projects over the next five years. Those projects include audits, inspections and assessments both FCC and Universal Service Fund programs. This totals more than 10 audits per year, not including any Congressional requests, special projects and non-recurring mandates.

The OIG Office of Investigation (OI) has 84 open cases as of March 31, 2017. OIG, continues working with the Department of Justice (DOJ) and has recovered millions of dollars of government funds resulting from criminal and civil fraud cases referred to the DOJ.

In compliance with the IG Reform Act of 2008 this FCC OIG FY 2019 budget request includes:

- A fair share ratio in the amount of \$32,000 for contribution to the Council of the Inspectors General on Integrity and Efficiency (CIGIE),
- Funds to support IGSNet Management Services, and
- Training funds in the amount of \$83,000.

Universal Service Fund Activities and Costs

The Commission is responsible for the overall management, oversight, and administration of the Universal Service Fund (USF), including all USF policy decisions. The FCC has been working with the Universal Service Administrative Company (USAC), as administrator of the USF, to

review its administrative expenses to find savings and also to review the effectiveness of its internal controls around USAC's spending, procurement, information technology, and personnel processes. The FCC's Chairman has publicly communicated to USAC his concerns about cost overruns and schedule delays surrounding the implementation of information technology supporting the E-rate program, and USAC is working to make improvements. Furthermore, in response to investigations raising serious concerns about the Lifeline program's operations, the Chairman has directed USAC to implement improvements to the management of the Lifeline program to mitigate the risks of fraud, waste, and abuse. For additional information about how the FCC coordinates with USAC, below are descriptions of the USF oversight duties and responsibilities of the various Commission Bureaus and Offices that work together closely as an oversight team.

Office of Managing Director. The Office of Managing Director (OMD) is responsible for all USF management and administrative activities, including finance, accounting, procurement, information technology, and audits of beneficiaries and contributors. OMD provides instruction and oversight to USAC on these issues.

Wireline Competition Bureau. The Wireline Competition Bureau (WCB) oversees USF policy and provides guidance on the applicability and interpretation of the Commission's USF rules, orders, and directives to USAC and to stakeholders. WCB also is primarily responsible for USF rulemaking proceedings, appeals of USAC decisions, requests for waivers of the Commission's USF rules, petitions for USF declaratory rulings, interactions with the Federal-State Joint Board on Universal Service, and preparation and publication of USF information in the Universal Service Monitoring Report.

Wireless Telecommunications Bureau. The Wireless Telecommunications Bureau (WTB), in coordination with WCB, develops policy and procedures concerning the Mobility Fund, a universal service support mechanism dedicated exclusively to mobile services. WTB, in coordination with WCB, also oversees reverse auctions policy and implementation for distributing Mobility Fund and Connect America Fund universal service support.

Office of General Counsel. The Office of General Counsel (OGC) oversees issues relating to litigation and settlements of civil, criminal, or bankruptcy matters. OGC is also the lead contact on issues relating to the treatment and potential disclosure of confidential information and of other nonpublic information as defined in the Commission's rules.

Enforcement Bureau. If USAC identifies a possible violation of the Communications Act or a Commission rule, order, or directive, it will refer the issue to the Enforcement Bureau (EB) for possible investigation and administrative enforcement action, including issuing forfeitures. EB also pursues potential investigations of USF related matters from other sources of information as well. In addition, EB is authorized to suspend and debar persons from participating in the universal service mechanisms upon a criminal conviction of or civil judgment for fraud against a USF program.

Office of Inspector General. The Office of Inspector General (OIG) conducts audits, evaluations, and inspections of USF programs and operations, as well as program service providers and beneficiaries designed to prevent and detect fraud, waste, and abuse. These oversight activities and related initiatives help promote economy, effectiveness, and efficiency of the USF.

USF Activities

On February 23, 2017, the Commission adopted rules for allocating nearly \$2 billion, through a reverse auction, from the Connect America Fund (CAF), which aims to advance fixed voice and broadband service to unserved areas across the country. Through the auction mechanism, the Commission will seek the best deal for the American people with the limited available funds.

Under Mobility Fund Phase II, the Commission’s goal is to ensure that more Americans have access to advanced wireless services. Specifically, on February 23, 2017, the FCC adopted, on a bipartisan basis, a plan to bring 4G LTE service to millions of rural Americans who currently do not have wireless service. Over ten years, the USF will spend over \$4.5 billion to bring mobile broadband to unserved areas and preserve such service where it otherwise might not exist. This support will be distributed through a reverse auction, which ensures fiscal responsibility.

FCC Chairman Pai has formed a Rural Broadband Auctions Task Force, drawn from senior leaders across the agency, including OMD, WCB and WTB. The Task Force will oversee both the Connect America Fund Phase II and Mobility Fund Phase II auctions.

In the Lifeline program, the Commission’s goals are to: (1) increase access to communication services, including broadband Internet, for low-income Americans; and (2) ensure fiscal responsibility and combat waste, fraud, and abuse so Lifeline USF dollars spent reach the consumers Lifeline was created to help. Actions to accomplish these goals include closing loopholes that let unscrupulous carriers exploit the Lifeline program.

In the E-rate program, the Commission is committed to solving problems with USAC’s application system that have negatively impacted the ability of schools and libraries to apply for and receive funding. The Commission will oversee USAC’s remediation of these problems and USAC’s administration of this program in a manner which is transparent and accountable.

Finally, under the Rural Health Care Program, the Commission remains committed to facilitating healthcare delivery in rural and remote parts of America by providing funding for telecommunications and broadband services necessary for the provision of healthcare to eligible health care providers.

The chart below shows the costs the Commission has incurred in overseeing the USF Fund activities, which includes costs incurred by the OIG.

(Dollars in Thousands)

Fiscal Years	FY 2017	FY 2018	FY 2019
FCC's USF Activities Costs¹	\$22,650	\$23,081	\$23,542
Full-Time Equivalent (FTEs)	100	100	100

¹ Amounts shown for FYs 2018 and 2019 are projections based on actual costs.

The chart below shows number of Commission FTEs working on USF activities by bureau and office for FY 2017.

Number of FCC FTEs Working On USF Activities By Bureau and Office	FTEs
Wireline Competition Bureau	56
Wireless Telecommunications Bureau	11
Enforcement Bureau	10
Office of Inspector General	10
Office of the Managing Director	6
Office of General Counsel	5
Office of Legislative Affairs	1
Office of Strategic Planning & Policy Analysis	1
Total FTEs	100

Crosswalk of USF Outlays to FCC Strategic Goals

The Commission develops policies for the USF, and USAC collects and delivers funding through four programs -- Schools and Libraries (E-rate), Rural Health Care, Lifeline, and High Cost -- focused on places where broadband and connectivity needs are critical. These programs serve people in rural, underserved, and difficult-to-reach areas.

In FY 2017, USF made outlays totaling over \$9 billion. These outlays were allocated to the following FY 2017 strategic goals:

(Dollars in Millions)

Applicable FY 2017 Strategic Goals	Outlay Amount	Percent
Promoting Economic Growth and National Leadership	\$4,612	50.9%
Making Networks Work for Everyone	\$4,443	49.1%
Total	\$9,055	100.0%

For FYs 2018 and 2019, the outlays made under the USF will be allocated to the Commission's new strategic goals of Closing the Digital Divide and Promoting Innovation.

Status of FCC Headquarters Move

The Commission's current headquarters (HQ) lease for the Portals II building at 445 12th Street SW, Washington, DC expired on October 15, 2017. GSA informed the Commission that the current lessor may want a 20% premium over the current lease rate, translating to an increase of approximately \$9 million per year in lease costs. GSA is working on negotiating with the current lessor for a lease extension.

In 2015 Congress approved a prospectus for a replacement lease for a 15-year term that would reduce FCC headquarters square footage by approximately 30 percent and lower the overall rental expense. It is estimated that the move will provide up to \$119 million in total savings over the 15 years of the new lease.

Subsequently, the General Services Administration (GSA) conducted a competitive lease procurement and awarded the contract to a new lessor. The new lease will require the Commission to move to a newly built facility in fiscal year 2020. GSA estimated that the total cost for the headquarters move was \$70,971,489. In FYs 2016 and 2017, as part of the Commission's budget request, the Commission requested a total amount of \$51,358,497 and \$19,612,992, respectively, from both regulatory fees and auction program funds. Congress appropriated a total amount of \$68,225,489 from both regulatory fees and auction program funds but did not appropriate \$2,746,000 in FY 2017 from the auction program funds. To ensure that the move is fully funded as estimated by GSA, the Commission allocated the shortfall amount of \$2,746,000 from the FY 2017 auction appropriation. To date, the Commission has obligated \$1,205,176 of the total funds allocated for the headquarters move project.

Spectrum Auctions Program - Explanation of Requested Change

The Federal Communications Commission is requesting \$112,734,000 for the Spectrum Auctions Program for FY 2019, as shown below. These funds are needed in part for making more spectrum available for commercial use by repacking and reimbursing broadcasters and multichannel video programming distributors (MVPDs) for relocation expenses. This will clear contiguous spectrum in the ultra-high frequency band that will be repurposed as the 600 MHz Band. Also, funds will be used for upgrading and improving auctions infrastructure in preparing for future auctions, continuing implementation of the Spectrum Pipeline Act of 2015, including promoting the use of 3.5 GHz band through auctions, and conducting additional spectrum auctions.

(Dollars in Thousands)

	FY 2018 Annualized CR Amount	FY 2019 Congressional Request	TOTAL NET CHANGE	
			Amount	Percent
Spectrum Auctions Program Cost Recovery	\$116,205	\$112,734	-\$3,471	-3.0%
Explanation of Changes - Spectrum Auctions Program				
FY 2017 Appropriated			\$117,000	
FY 2018 Continuing Resolution (CR) Adjustment				
FY 2018 CR Mandatory Reduction for Operations (0.6791%)		-\$795		
FY 2018 Adjusted Annualized CR Amount			\$116,205	
FY 2018 Congressional Request Adjustment:				
Salary and Non-Salary Increases		\$2,226		
Reduction in Funding - Personnel Cost ¹		-\$3,816		
Reduction in Funding - Non-Personnel Cost ¹		-\$3,465		
Subtotal			-\$5,055	
FY 2019 Base - Before Non-Salary Inflationary Increases			\$111,150	
FY 2019 Non-Salary Inflationary Increases to Base:²			\$1,584	
FY 2019 Total Request - Spectrum Auctions Program			\$112,734	
TOTAL NET CHANGE			-\$3,471	-3.0%

¹The initial amount was decreased up to the FY 2018 CR Mandatory Reduction Amount for Operations.

²Utilized the FY 2018 inflationary rate of 1.9% for the first quarter of FY 2019 and FY 2019 inflationary rate of 2.0% for the remaining three quarters of FY 2019.

Spectrum Auctions Program

The Omnibus Budget Reconciliation Act of 1993, P.L. 103-66, required the Commission to auction portions of the electromagnetic spectrum for certain services, replacing the former lottery process. The Act further requires the Commission to ensure that small businesses, women, minorities, and rural telephone companies have an opportunity to participate in the competitive bidding process. The Commission initiated regulations implementing the spectrum auction authority granted by the legislation and conducted its first round of auctions in July 1994.

As of the official date of the completion of the broadcast incentive auction (BIA) on April 13, 2017, the Commission had completed 88 spectrum auctions, and as of December 31, 2017, the total amount collected for broader government use and deficit reduction exceeds \$114 billion. The original spectrum auction authority was scheduled to expire in FY 1998; however, it was extended through FY 2007 in the Balanced Budget Act of 1997, P.L. 105-33; extended through FY 2011 by the Deficit Reduction Act of 2005, P.L. 109-171; extended through FY 2012 by the DTV Delay Act (2012), P.L. 111-4; and extended through FY 2022, by the Middle Class Tax Relief and Job Creation Act of 2012, P.L. 112-96. Furthermore, the Commission's authority to conduct auctions was further extended until September 30, 2025, in the Spectrum Pipeline Act of 2015, which was included as Title X in the Bipartisan Budget Act of 2015, P.L. 114-74, with respect only to electromagnetic spectrum identified under section 1004(a) of that Act.

The Commission is authorized to retain funds from auction revenues to develop, implement, and maintain the auctions program. These funds cover the personnel and administrative costs required to plan and execute spectrum auctions; operational costs to manage installment payments and collections activities; development, implementation, and maintenance of all information technology systems necessary for auctions operations, including development of a combinatorial bidding system; and a proportional share of the general administrative costs of the Commission. This budget submission assumes that the auctions program will continue to recover the costs of conducting auction activities from spectrum license auction receipts as the Commission continues to use auctions as a licensing mechanism for spectrum-based communications services.

The proposed FY 2018 Appropriations language capped auctions program obligations at \$111.15 million. The FCC request of \$112.734 million for FY 2019 includes only an uncontrollable non-salary inflationary increase of about 2 percent, or \$1.584 million, as recommended by OMB. The salary increases of \$0.619 million for FY 2019 are not included in the Commission's request. The increase will be paid from Commission's existing auctions base budget. Funding at this level will still enable the Commission to continue substantial post incentive auction work related to repacking and reimbursing broadcasters and multichannel video programming distributors (MVPDs) for relocation costs to implement the results of the BIA; to upgrade and improve auctions program infrastructure in preparation for future auctions; and to continue implementing the Spectrum Pipeline Act of 2015 by, for example, taking the steps necessary to promote use of the 3.5 GHz band through auctions of certain licenses.

Broadcast Incentive Auction and Post-Broadcast Incentive Auction Transition Work

In the Incentive Auction Closing and Channel Reassignment Public Notice, released on April 13, 2017, the Commission announced the completion of the first-ever incentive auction and publicly provided the results of the reverse auction, the forward auction, the assignment phase, and the

channel reassignments of television stations that are required to change their channels during the 39-month relocation process that commenced as of the release of that Public Notice. The 39-month transition period ends July 13, 2020. The release of that Public Notice also started the licensing process for the winning bidders for new flexible-use wireless spectrum licenses.

After implementation is complete, the BIA will have made available 84 megahertz of low-band spectrum for commercial and unlicensed wireless use by repurposing a portion of the broadcast TV band. The auction began on March 29, 2016, and closed on April 13, 2017. The total net winning bids of approximately \$19.3 billion from the auction placed it in second among all Commission auctions in terms of the amount of total winning bids. Approximately \$7 billion will be transferred to the U.S. Treasury for deficit reduction. The auction proceeds from winning bidders of new spectrum licenses were used to pay winning broadcast bidders in the reverse auction and to fund the \$1.75 billion TV Broadcaster Relocation Fund, which will be used to reimburse full power and Class A broadcast stations and MVPDs for their eligible expenses incurred as a result of broadcast stations being involuntarily relocated to new channels as authorized by Congress in the Middle Class Tax Relief and Job Creation Act of 2012.

Because of the complex, two-sided nature of the BIA, the Commission will continue to engage in an unprecedented amount of post-auction activity to fully and successfully complete follow-up auction implementation tasks. The results of the incentive auction require 987 full-power and Class A broadcasters nationwide to relocate to create contiguous spectrum in the 600 MHz band that has been repurposed and auctioned for flexible wireless uses.³ Further, up to 133 additional stations may relocate to share a channel with another broadcast television station. Thousands of secondary broadcast stations, low power, and TV translator stations may also be displaced and will have the opportunity to apply for alternative channels, and, to the extent they file mutually exclusive applications, the Commission will hold an auction to resolve such applications. To account for interference considerations, some of these broadcast stations, including full-power, Class A, and secondary services, may need to relocate more than once.

October 2018 marks the mid-way point for the 39-month post-auction transition period. Hundreds of full-power and class A broadcast stations will still need to be relocated as of that date. The following highlights many of the activities that will continue to take place during an aggressive schedule through FY 2020.

- **Licensing for Broadcasters Being Relocated** – Broadcast licensing is performed in two steps: (1) application review and grant of a construction permit (CP) and (2) application review and grant of a license to cover. The Commission will continue to process applications throughout the transition period. In addition, there will have been two additional sequential windows in which full-power and Class A television stations will have been able to submit CPs and other requests for modification of their channel assignments to the Commission, depending on the broadcaster’s specific circumstances and needs. If applications filed during those windows are mutually exclusive, certain priorities apply and applicants will be provided an opportunity to resolve remaining issues through settlement

³ As a result of the BIA, 987 full-power and Class A broadcast stations were assigned new channels and must be relocated during the 39-month transition period. Of those, 30 full-power stations were winning bidders in the reverse auction and are not eligible for reimbursement of relocation costs. The remaining 957 full-power and Class A stations that are being relocated are eligible for reimbursement from the \$1.75 billion TV Broadcast Relocation Fund.

or technical solution. If they are unable to do so, this will require the Commission to establish bidding and application procedures and hold a new auction to issue the licenses.

- Transition Phases and Licensing – The Commission has adopted a phased transition process in which each station that is being repacked is assigned one of 10 transition phases. By the end of its assigned transition phase, a station must discontinue operations on its pre-auction channels. In addition, pursuant to Commission rules, all broadcasters must cease operation on their pre-auction channels no later than 39 months after the issuance of the Closing and Channel Reassignment Public Notice. Consideration of all CPs and requests for waivers and applications to alter deadlines must be analyzed by staff for compliance with applicable rules and to determine the impact that granting such requests would have on the phased transition schedule.

After a broadcaster completes the construction of its new facilities, it must file an application with the Commission for its license, which will require review and approval by the Commission. In addition, active oversight of the multi-year process will require substantial Commission staff resources to coordinate with broadcasters; with vendors involved in transition tasks; with other government and regulatory agencies at the federal, state, and local levels; and with international regulatory partners in the U.S.-Canada and U.S.-Mexico border zone regions. The implementation process will also require Commission staff to monitor broadcaster progress, identify and resolve transition-related problems and challenges that could endanger the transition schedule, process applications, and review and verify information. Accomplishing the transition will require additional software, cloud computing resources, and assistance from skilled computer scientists, software engineers, and technology security experts.

- Regional Coordination of Transition Phases – The Commission’s Incentive Auction Task Force and the Media Bureau have created a specialized team to assist broadcasters through the transition phases on a regional basis. Regional Coordinators assist with communications among the 987 broadcasters as well as affected MVPDs, function as liaisons within the Commission, and assist with coordination with other federal government agencies such as the FAA as well as with Tribal governments.
- Reimbursements to Repacked Broadcasters and MVPDs – Reimbursements to eligible entities started in FY 2018 and will continue through FY 2020. Congress established a TV Broadcaster Relocation Fund (Relocation Fund), not to exceed \$1.75 billion, to reimburse broadcasters and MVPDs for their relocation expenses. The Commission has engaged an independent consulting firm to assist in administering the Relocation Fund. The reimbursement process has two major components: (1) cost estimates and fund allocation; and (2) invoice reimbursement processing.
 - Cost Estimates and Full Allocation – The Fund Administrator reviewed the initial reimbursement estimates and the accompanying supporting documentation submitted by eligible entities to validate that the estimates reflect costs that may be reasonably incurred to relocate television service from a station’s original channel to its reassigned channel or, in the case of multichannel video programming distributors (MVPDs), to continue to carry the broadcast signal of a reassigned broadcast station. Requests for additional information were sent to entities where

reasonableness could not be determined, where necessary documentation appeared to be missing, or where the requested reimbursement appeared to be excessive. A public notice announcing an initial allocation of \$1 billion was released on October 16, 2017. That allocation gave commercial stations and MVPDs access to approximately 52 percent of their currently estimated and verified costs, and non-commercial entities access to approximately 62 percent of their currently estimated and verified costs to provide entities with access to reimbursement funding sufficient to begin the transition process, while preserving flexibility to respond to unforeseen changes that may arise while undertaking transition activities. The Commission will announce one or more additional allocations during the transition period, and subsequent allocations may be based on revised cost estimates. Prior to the end of the 3-year reimbursement period, entities will provide information regarding their actual and remaining estimated costs and will be issued a final allocation, if appropriate, to cover the remainder of their eligible costs.

- Invoice Reimbursement Processing – Eligible entities may only draw upon their allocated funds upon submission of actual invoices and other supporting documentation. Since the initial allocation, the Fund Administrator has begun to review invoices for actual costs incurred by broadcasters and MVPDs and to make recommendations to the Commission as to their reasonableness. The Commission reviews those recommendations and pays approved invoices submitted by broadcasters and MVPDs.
- Submission of Revised Banking Information by Broadcasters and MVPDs – The Commission requires broadcasters that will receive payments for repacking expenses and MVPDs that will receive payments for reimbursement of expenses related to continued carriage of repacked stations to provide detailed banking information that is both notarized on paper form and submitted in a secure electronic system. The Commission reviews this information prior to making any payments. Broadcast stations and MVPDs may revise their banking information throughout the transition period.
- Displaced LPTV (Low Power Television) and TV Translators – The Commission is currently processing hundreds of applications for special temporary authority or other relief filed by operating LPTV and TV translator stations displaced due to new 600 MHz Band wireless licensees commencing operations or conducting first field application testing on their licensed 600 MHz spectrum. Furthermore, after licensing for full power and Class A broadcasters being relocated is substantially complete, the Commission will open a special filing window for operating LPTV and TV translator stations that are displaced by the reallocation of the television bands and the repacking. The displacement window is anticipated to open during FY 2018. Processing of applications filed in the displacement window is anticipated to take nine to twelve months and to continue during FY 2019. If applications filed during the window are mutually exclusive, certain priorities apply and applicants will be provided an opportunity to resolve remaining issues through settlement or technical solution. If they are unable to do so, this will require the Commission to establish bidding and application procedures and hold a new auction to issue the licenses.
- Channel Sharing Winning Bidders – Stations with a winning bid to relinquish spectrum usage rights on their original channel (sharee) to share a channel with another station

(sharer) where the sharer station is being repacked must file a construction permit application, and subsequently a license to cover that construction permit, for the sharer station's post-auction channel. Such licensing applications will be filed and processed for stations where the sharer channel has a transition phase deadline during FY 2019 or later.

- **Wireless Licensing** – Winning bidders submitted license applications and deposited winning bid amounts with the Commission in FY 2017. The Commission grants these licenses on a rolling basis. Historically, some licenses have been granted in as little as two months while others may take one to two years as issues are resolved. Accordingly, while most of the applications will have been acted upon by the end of FY 2018, it is possible that some may still be pending and require further consideration and Commission action in FY 2019.
- **Stakeholder Outreach** – To minimize disruptions and ensure an orderly transition, the Commission provides necessary stakeholder and consumer communications, education, and outreach. These efforts include providing education materials for broadcast stations, MVPDs, wireless microphone operators, and unlicensed users affected by the transition, as well as consumer outreach efforts geared toward reaching affected Americans where they live and work. The Commission also maintains a comprehensive website to serve as a single point of reference for all transition-related information. The Commission will continue to maintain and update these efforts throughout the transition period ending in 2020.

Spectrum Pipeline Act of 2015 and Other Auction Program Improvements

The Spectrum Pipeline Act of 2015 (Act) requires the Commission to auction 30 megahertz of spectrum identified by the Secretary of Commerce for reallocation from Federal use to non-Federal use, shared use, or a combination thereof. The Act also appropriates funds from the Spectrum Relocation Fund to support activities by Federal entities to improve the efficiency and effectiveness of Federal use of spectrum in order to make Federal spectrum available for non-Federal use, shared use, or a combination thereof, and requires the FCC, as part of its role on the Technical Panel, to review Federal entities' proposals for funds for these purposes. Additionally, the Act also requires the Commission to submit four separate reports to Congress. By November 2018, the Commission must submit a report with an analysis of its new rules for the innovative Citizens Broadband Radio Service in the 3550-3650 MHz band and a report analyzing proposals to promote and identify additional bands that can be shared under such rules and identify at least 1 gigahertz of spectrum between 6 GHz and 57 GHz for such use. By January 1, 2022, in coordination with the Assistant Secretary of Commerce for Communications and Information, the Commission must submit a report that identifies at least 50 megahertz of spectrum below 6 GHz for potential auction. Finally, by January 2, 2024, in coordination with the Assistant Secretary of Commerce for Communications and Information, the Commission must submit a report which identifies at least an additional 50 megahertz of additional spectrum below 6 gigahertz for potential auction. The latter two reports must contain an assessment of the Federal operations in such spectrum, an estimated timeline for the competitive bidding process, and a proposed plan for balance between unlicensed and licensed use.

To fulfill these statutory requirements and enhance the Commission's ability to execute upcoming auctions, auctions funding will be used for the following:

- 3.5 GHz Auction Development and Implementation – The Commission is currently assessing proposed rules for licenses in this band subject to auction. As a result, these auctions may have a unique set of requirements that will require the Commission to develop new auctions procedures and technology. The Commission currently estimates that work will take place in FY 2019 to prepare for this auction.
- Other Auction Development and Implementation – The Commission needs to make additional changes to the auction bidding system for other planned auctions that could include an AWS-3 re-auction, auction of bands made available for flexible terrestrial use in the Spectrum Frontiers proceedings, and auction of the 30 MHz required by the Spectrum Pipeline Act of 2015. In particular, the Commission expects a substantial amount of activity in FY 2019 in preparation for auctions related to Spectrum Frontiers bands, which may involve unique requirements related to sharing with incumbents, tracking satellite earth station placements, and other issues.
- SAS/ESC Testing for 3.5 GHz and Beyond – The Spectrum Access System (SAS)/Environmental Sensing Capability (ESC) are necessary components to share additional spectrum in this band and are necessary to protect incumbent Federal operations. These systems will be launched first for the 3.5 GHz band, and may have additional applications in the future. Because the systems will work as a dynamic frequency coordinator for a complex ecosystem of devices, we need to ensure they operate properly and consistently with our rules prior to approval.
- Optimization for New Spectrum Opportunities – The optimization team will help the Commission analyze and study options for making new spectrum available, including through sharing scenarios, to ensure we are maximizing the amount of useful commercial spectrum. They will develop optimal band plans accommodating incumbent uses and demonstrate the value of additional clearing or sharing as necessary. This research will also provide statistical and technical analysis, simulation, and modeling, including geographic data and mapping, related to auctions.
- Spectrum Visualization Tools – Public Facing and Internal – The public has a significant interest in understanding who has the rights to different spectrum bands at different locations, and in the ability to manipulate and analyze this data. Federal agencies also would benefit from this information as they consider sharing/relocation options. Additionally, it is critical for internal teams to have robust data, including mapping, to understand coverage and operations across the country.
- Integrated Spectrum Auctions System (ISAS) Enhancement/Modernization – The Commission must modify the application forms for participation in each auction in response to the auction’s unique requirements. Work to modernize the ISAS system will provide for new implementations of the primary auctions application software, including providing the ability to customize the form to support each auction.
- Universal Licensing System (ULS) Enhancement/Modernization – The Commission must modify ULS to implement new auction services and rules. In addition, the Commission will be modernizing ULS to eliminate the use of outdated technology and improve reliability,

security, and access to data. The system modernization efforts will allow us to better support new auction services, inventory existing auction licenses, and re-auction spectrum.

The Balanced Budget Act of 1997, P.L. 105-33, requires the Commission to provide to authorizing committees a detailed report of obligations in support of the auctions program for each fiscal year of operation, as a prerequisite to the continued use of auctions receipts for the costs of all auctions activities. As required, each year the FCC provides the spectrum auctions expenditures report for the preceding fiscal year to Congress by the statutory deadline of September 30 of the following fiscal year. The following table shows available auction cash for recent fiscal years.

Spectrum Auctions Activities

Dollars in Thousands

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Beginning Cash Balance as of October 1	\$199,151	\$166,489	\$69,071	\$317,931	\$513,456	\$2,980,154
Current Year Net Cash	(18,801)	(90,057)	252,796	11,115,179	2,777,519	7,728,932
Less:						
Deferred Revenue as of September 30 ¹	(13,136)	(6,760)	(3,318)	(10,919,416)	(308,607)	(2,064,903)
Deposit Liability - Refunds as of September 30 ²	(725)	(601)	(618)	(238)	(2,214)	(2,214)
Accounts Payable ³	0	0	0	0	0	(21,321)
Available Cash as of September 30⁴	<u>\$166,489</u>	<u>\$69,071</u>	<u>\$317,931</u>	<u>\$513,456</u>	<u>\$2,980,154</u>	<u>\$8,620,648</u>

¹Cash associated with licenses that have not been granted as of stated date.

²Upfront auction deposits not refunded as of stated date.

³Remaining amount owed to the Incentive Auction Reverse Auction Winners.

⁴For FY 2017, the amount includes approximately \$7 billion for deficit reduction when all the licenses from the incentive auction are granted.

Summary of Distribution of Resources - Spectrum Auctions Program

SPECTRUM AUCTIONS COST RECOVERY REIMBURSABLE AUTHORITY INCLUDING OFFICE OF INSPECTOR GENERAL

(Dollars in Thousands)

<u>Object Classification Description</u>	<u>FY 2017 Actuals</u>	<u>FY 2018 Annualized CR Amount</u>	<u>FY 2019 Congressional Request</u>
Personnel Compensation & Benefits:			
Full-time & Other than full-time Permanent (11.1 & 11.3)	\$26,482	\$23,890	\$24,364
Personnel benefits (12.0)	7,890	7,378	7,524
Subtotal - Personnel Compensation & Benefits	\$34,372	\$31,268	\$31,888
Other Expenses:			
Benefits for former personnel (13.0)	\$6	\$11	\$11
Travel & transportation of persons (21.0)	252	327	334
Transportation of things (22.0)	33	24	24
Rent payments to GSA (23.1)	6,550	5,657	5,769
Communications, utilities, & misc. charges (23.3)	1,470	1,785	1,820
Printing and reproduction (24.0)	175	182	185
Other services from non-Federal sources (25.2)	11,801	27,831	22,607
Other goods & services from Federal sources (25.3)	942	393	401
Operation & maintenance of equipment (25.7)	39,433	44,287	45,165
Supplies and materials (26.0)	3,267	3,530	3,600
Equipment (31.0)	733	906	924
Land and structures (32.0)	0	0	0
Insurance claims & indemnities (42.0)	5	5	5
Subtotal - Other Expenses	\$64,669	\$84,937	\$80,846
Total - Auctions Cost Recovery Reimbursable Authority	\$99,041	\$116,205	\$112,734

Spectrum Auctions Expenditures Report

Section 309(j) of the Communications Act permits the Commission to use funds raised from auctions to fund its auctions program, including contracts for services and costs related to personnel performing work in support of Commission auctions authorized under that section. The FCC's Office of General Counsel (OGC) and Office of Managing Director (OMD) provide direction to FCC employees attributing hours for this purpose. The House of Representatives and Senate Appropriations Committees review and set a yearly cap for the spectrum auctions program. The requested cap level for FY 2019 is \$112,734,000 to further the objective of making more spectrum available for commercial use; to continue post incentive auction work; to upgrade and improve auctions infrastructure in preparation for future actions; and to continue implementation of the Spectrum Pipeline Act of 2015. The FY 2019 request is a decrease of \$3,471,453 or 3 percent, from the FY 2018 annualized continuing resolution level of \$116,205,453. The salary increases of

\$0.619 million for FY 2019 is not included in the Commission's request. This increase will be paid from the Commission's existing auctions base budget.

The Commission's spectrum auctions program expenditures support efficient licensing while also contributing significant funds to the U.S. Treasury for deficit reduction and providing direct support to other broader government programs. In particular, in the Middle Class Tax Relief and Job Creation Act of 2012, Congress directed that proceeds from certain spectrum auctions, including auctions of licenses covering spectrum offered in the H-Block, AWS-3, and broadcast incentive auctions, fund certain public-safety-related programs and contribute to deficit reduction. Specifically, Congress directed that the net proceeds from these auctions, in addition to being used to reimburse Federal agencies for costs incurred as a result of sharing or relocating Federal spectrum assignments and to reimburse the relocation expenses of full power and Class A broadcast stations being repacked in the new TV Band following the incentive auction, be distributed as follows: \$135 million for a state and local First Responder Network Authority (FirstNet) implementation fund; \$7 billion for FirstNet build out; \$115 million for 911, E911, and NG911 implementation; \$300 million for public safety research; and \$20.4 billion plus any additional proceeds for deficit reduction.

As of September 30, 2016, the FCC has transferred \$39.8 billion from the H-Block and AWS-3 auctions to satisfy all the distribution requirements as directed by Congress in the Middle Class Tax Relief and Job Creation Act of 2012. Of this total, in FY 2016, the Commission transferred \$8.4 billion to the Public Safety Trust Fund. This amount includes \$328.9 million for deficit reduction above and beyond the initial \$20.4 billion initially mandated by Congress in the Middle Class Tax Relief and Job Creation Act of 2012.

At the conclusion of the incentive auction on April 13, 2017, the Commission had raised over \$114.6 billion in auctions revenues since initiating the auctions program in 1994. During this period, the auctions program expenses have been less than two percent of the Commission's total auctions revenues. The Commission operated the auctions program for nine years at \$85 million annually without any increase in funding, including increases for inflation. It only received increases in FYs 2013 through 2017 to fund the implementation costs for the broadcast incentive auction and Spectrum Pipeline Act of 2015, and to fund the necessary expenses associated with headquarters move to a new facility or reconfiguring the existing space in FY 2016.

Spectrum auction planning, development, and implementation is performed agency-wide and is very information technology (IT) intensive, as reflected in our Spectrum Auctions Expenditures Reports, which are provided to Congress on an annual basis. For example, the Incentive Auction Task Force is composed of staff from across the Commission, including the Wireless Telecommunications Bureau, Media Bureau, International Bureau, Bureau of Consumer and Governmental Affairs, Office of Engineering and Technology, Office of the Managing Director, and Office of General Counsel. Auctions funds also cover the program's share of Commission operating expenses. The Commission uses these funds to enable successful auctions and expends them in a manner consistent with that objective.

Every auction is different and has specific requirements, which require careful attention to detail and planning. Since auction activities are performed agency-wide and are unique, allocating the appropriate amount of cost and overhead related to the auctions program is a challenge. In addition, the complexity of spectrum auctions has increased steadily as the Commission works through more difficult technical and policy issues, and spectrum auctions generally require long lead times to

design, develop, and implement secure, reliable, and effective auction application, bidding, and post-auction licensing systems.

In the practice of cost accounting, costs are identified as one of the following: (1) direct cost, (2) indirect cost, or (3) generally allocated cost. The methodology for deriving the proportional share of generally allocated administrative costs to be charged to the auctions program is based on the Commission's time reporting system and Generally Accepted Accounting Principles. The allocation is based on the percentage of actual hours that employees worked to support the auction program plus the same proportional share of the employee's indirect hours (leave hours). This full time equivalent (FTE) rate is applied to costs that benefit the Commission as a whole. These items that are allocated by the FTE rate include Commission-wide information technology systems, guard service, administrative facility services, supplies, furniture, equipment, and human resources training activities. The FCC has maintained an average of 14 percent for this purpose, with minor deviations.

At the direction of Congress, and after years of planning and systems development to put all the necessary rules and complex bidding systems in place, the Commission concluded the final bidding phase of the historic broadcast incentive auction in FY 2017. After the Commission's implementation of auction results is complete, the incentive auction will have made available 84 megahertz of low-band spectrum for commercial and unlicensed wireless use by repurposing a portion of the broadcast TV band for wireless use. The incentive auction began on March 29, 2016, and closed on April 13, 2017. The total net winning bids of approximately \$19.3 billion from the first-ever incentive auction places it in second place among all Commission auctions in terms of the amount of total winning bids. Approximately \$7 billion will be transferred to the U.S. Treasury for deficit reduction.

A primary Commission auction focus in FY 2019 will be to continue to carry out its responsibilities related to the post-incentive-auction implementation. This work includes continuing to make disbursements from the \$1.75 billion TV Broadcaster Relocation Fund to broadcasters and MVPDs and continuing to relocate 987 broadcasters with minimum disruption to the viewing public. It also includes re-licensing up to 133 additional winning bidder station's that relinquish their spectrum to share a new channel with another broadcast television station. The Commission also will continue to carry out its responsibilities to consider the relocation of potentially thousands of LPTV and TV translator stations that will be displaced by the reallocation of the television bands.

The construction period of this "repacking" process formally began on July 12, 2017, 90 days after the release of the Closing and Channel Reassignment Public Notice. This period will continue for 36 months thereafter and is scheduled to be completed in FY 2020. Repacking involves reorganizing and assigning channels to the remaining broadcast television stations to create contiguous blocks of cleared spectrum suitable for flexible wireless use. The scope of the repacking component of this auction makes it a unique and computationally complex challenge that will continue to require substantial resources and engagement from the Commission over the next three years. The task requires that the Commission manage and organize every station's transition in a manner that respects the constraints imposed by linked-station sets – that is, a set of two or more stations with interference relationships and dependencies – as well as accounting for limited resources available to accomplish transition-related work. Active oversight of the multi-year process will require substantial Commission staff resources to coordinate with broadcasters; with vendors involved in transition tasks; with other government and regulatory agencies at the federal,

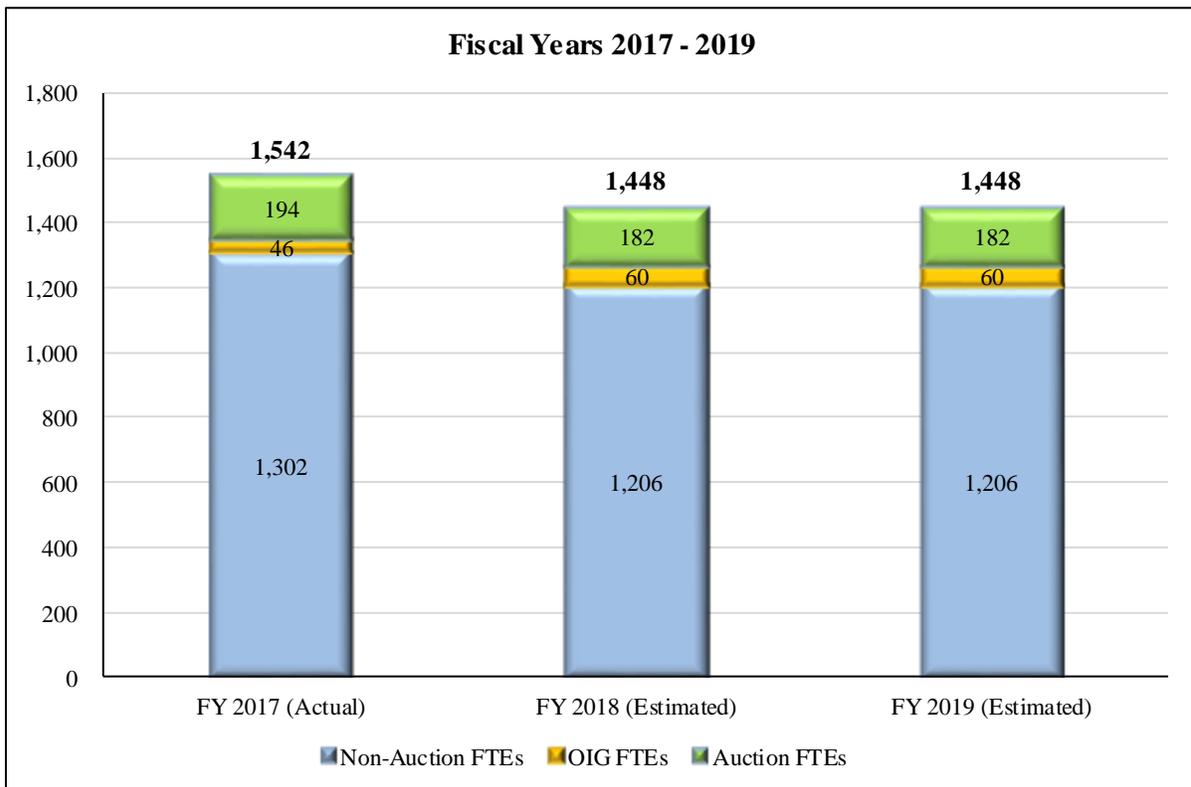
state, and local levels; and with international regulatory partners in the Canada and Mexico border regions of the United States. It will require Commission staff to monitor broadcaster progress, identify and resolve transition-related problems and challenges that could endanger the transition schedule, process applications, and review and verify information. Accomplishing the transition will require additional software, cloud computing resources, and assistance from skilled computer scientists, software engineers, and technology security experts. It also requires the Fund Administrator, which is overseen by Commission staff, to administer the reimbursement of \$1.75 billion to the qualified relocating broadcasters and MVPDs by reviewing cost estimates and invoices to prevent waste, fraud, and abuse.

In FY 2019, the Commission also will continue to focus on communications, education, and outreach efforts to all stakeholders in the incentive auction. The Incentive Auction Task Force, together with the Media Bureau and Bureau of Consumer and Governmental Affairs, will continue to provide training materials for broadcast stations, MVPDs, wireless microphone operators, and unlicensed users affected by the transition. These efforts will include troubleshooting guides for our consumer call center staff, an updated Consumer Q&A, and updated Consumer Guides. Wherever possible, the Commission will make these materials available in multiple languages. The Commission is also developing, and will maintain and update throughout the transition, a comprehensive “Post-Auction Transition” website that will serve as a single point of reference for all transition information for stakeholders and consumers. These efforts will continue to be maintained and updated throughout the transition period ending in 2020.

In addition to these post-incentive auction efforts, the Commission continues to plan for potential future auctions, most notably auctions related to reallocating bands made available in the Spectrum Frontiers proceeding to terrestrial wireless use and a new auction for Citizens Broadband Radio Service (CBRS) (3.5 GHz band) licenses. Other auctions that may continue to be a focus for the Commission in 2019 include the re-auction of certain AWS-3 or other licenses; the auction of FM translator allocations; and an auction of unsold 600 MHz licenses from the broadcast incentive auction. The Commission is also working to update and modernize its auction systems to improve their speed and flexibility to commence new auctions when additional spectrum that could be made available is identified.

The actual and estimated FTE levels for the spectrum auctions program for FYs 2017 through 2019 are shown on the following page.

FTEs by Resource Category



The following two schedules provides some details of the spectrum auctions program since its inception in 1994. These schedules also provide some perspective into how much money was collected for the U.S. Treasury or for broader government use and the total cost in running the Commission's spectrum auctions program.

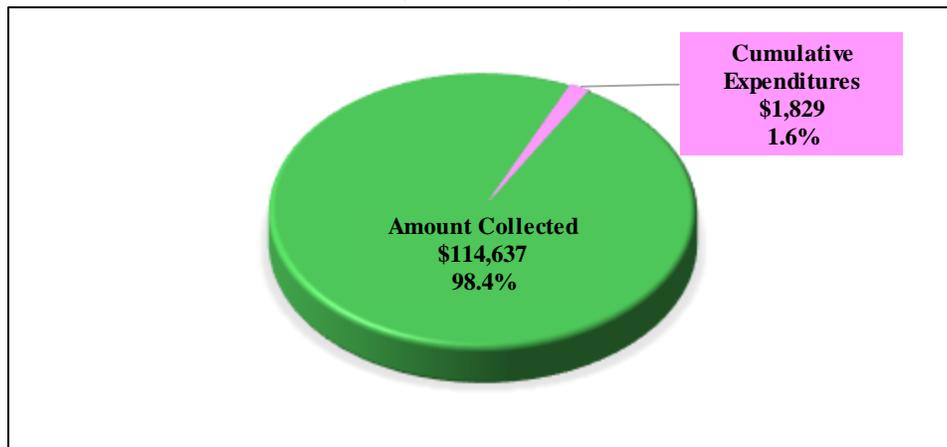
Spectrum Auctions and Collections

Fiscal Years 1994 through December 31, 2017

Fiscal Year	Number of Auctions	Number of Licenses Won	Amount Collected
1994	2	604	\$652,954,213
1995	2	129	8,234,321,194
1996	6	2,026	2,019,376,024
1997	4	1,614	2,205,922,232
1998	2	1,388	860,878,576
1999	6	1,693	499,598,445
2000	8	4,403	1,335,043,185
2001	4	3,447	583,599,901
2002	7	7,036	135,630,842
2003	7	3,144	77,121,620
2004	5	267	126,790,232
2005	6	2,803	2,208,332,556
2006	5	1,284	13,834,978,827
2007	5	293	163,429,971
2008	3	1,144	18,988,396,013
2009	2	115	5,597,028
2010	3	4,788	25,973,019
2011	3	126	31,493,200
2012	1	93	3,878,133
2013	2	3,197	5,782,012
2014	2	186	1,564,594,550
2015	2	1,611	41,755,658,759
2016	0	0	0
2017	1	2,776	19,318,072,507
Totals	88	44,167	\$114,637,423,039

Spectrum Auctions Program – Collections vs. Expenditures

Fiscal Years 1994 through December 31, 2017
(Dollars in Millions)



Cumulative Expenditures includes the Congressional request amount for FY 2018.