Department of Homeland Security
National Protection and Programs Directorate
Budget Overview

Fiscal Year 2019
Congressional Justification

Table of Contents

National Protection and Programs Directorate
Appropriation Organization Structure

Organization Name	Level	Fund Type (* Includes Defense Funding)
National Protection and Programs Directorate	**Component**	
Operations and Support	**Appropriation**	
Mission Support	PPA	Discretionary - Appropriation*
Cybersecurity	PPA	
Cyber Readiness and Response	PPA Level II	
NCCIC Operations	PPA Level III	Discretionary - Appropriation*
NCCIC Planning and Exercises	PPA Level III	Discretionary - Appropriation*
Cyber Infrastructure Resilience	PPA Level II	
Cybersecurity Advisors	PPA Level III	Discretionary - Appropriation*
Enhanced Cybersecurity Services	PPA Level III	Discretionary - Appropriation*
Cybersecurity Education & Awareness	PPA Level III	Discretionary - Appropriation*
Federal Cybersecurity	PPA Level II	
Federal Network Resilience	PPA Level III	Discretionary - Appropriation*
Continuous Diagnostics and Mitigation	PPA Level III	Discretionary - Appropriation*
National Cybersecurity Protection System	PPA Level III	Discretionary - Appropriation*
Infrastructure Protection	PPA	
Infrastucture Capacity Building	PPA Level II	
Sector Risk Management	PPA Level III	Discretionary - Appropriation*
Protective Security Advisors	PPA Level III	Discretionary - Appropriation*
Bombing Prevention	PPA Level III	Discretionary - Appropriation*
Infrastructure Information and Sensitive Data Protection	PPA Level III	Discretionary - Appropriation*
Infrastructure Security Compliance	PPA Level II	Discretionary - Appropriation*
Emergency Communications	PPA	
Emergency Communications Preparedness	PPA Level II	Discretionary - Appropriation*
Priority Telecommunications Services	PPA Level II	
GETS/WPS/SRAS/TSP	PPA Level III	Discretionary - Appropriation*
Next Generation Networks Priority Services	PPA Level III	Discretionary - Appropriation*
Integrated Operations	PPA	
Cyber and Infrastructure Analysis	PPA Level II	
National Infrastructure Simulation Analysis Center (NISAC)	PPA Level III	Discretionary - Appropriation*
Infrastructure Analysis	PPA Level III	Discretionary - Appropriation*

Organization Name	Level	Fund Type (* Includes Defense Funding)
Critical Infrastructure Situational Awareness	PPA Level II	Discretionary - Appropriation*
Stakeholder Engagement and Requirements	PPA Level II	Discretionary - Appropriation*
Strategy, Policy, and Plans	PPA Level II	Discretionary - Appropriation*
Office of Biometric Identity Management	PPA	
Identity and Screening Program Operations	PPA Level II	Discretionary - Appropriation
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	PPA Level II	Discretionary - Appropriation
Procurement, Construction, and Improvements	**Appropriation**	
Cybersecurity	PPA	
Continuous Diagnostics and Mitigation	PPA Level II,Investment	Discretionary - Appropriation*
National Cybersecurity Protection System	PPA Level II,Investment	Discretionary - Appropriation*
Emergency Communications	PPA	
Next Generation Networks Priority Services	PPA Level II,Investment	Discretionary - Appropriation*
Biometric Identity Management	PPA	
IDENT/Homeland Advanced Recognition Technology	PPA Level II	Discretionary - Appropriation
Integrated Operations Assets and Infrastructure	PPA	
Infrastructure Protection	PPA	
Research and Development	**Appropriation**	
Cybersecurity	PPA	Discretionary - Appropriation*
Infrastructure Protection	PPA	Discretionary - Appropriation*
Integrated Operations R&D	PPA	Discretionary - Appropriation*
Federal Protective Service	**Appropriation**	
FPS Operations	PPA	
Operating Expenses	PPA Level II	Discretionary - Offsetting Fee
Countermeasures	PPA	
Protective Security Officers	PPA Level II	Discretionary - Offsetting Fee
Technical Countermeasures	PPA Level II	Discretionary - Offsetting Fee

National Protection and Programs Directorate
Strategic Context
Component Overview

The strategic context presents the performance budget by tying together strategy, budget resource requests, programs, or PPAs, and performance measures that gauge the delivery of results to our stakeholders. The Common Appropriation Structure (CAS) allows DHS to integrate the strategic programmatic view with our budget view of resources. With this structure, a significant portion of the Level 1 PPAs represent what DHS refers to as our mission programs. A mission program is a group of activities acting together to accomplish a specific high-level outcome external to DHS and include operational processes, skills, technology, human capital, and other resources. NPPD's mission programs are presented below. The Integrated Operations and the Office of Biometric Identity Management programs were also included for they have publically reported measures. Performance measures associated with these programs are presented in two measure sets, strategic and management measures. Strategic measures communicate results delivered for our agency goals by these and are considered our Government Performance and Results Act Modernization Act of 2010 (GPRAMA) measures. Additional management measures are displayed to provide a more thorough context of expected program performance for the Component related to its budgetary plans.

Cybersecurity: The Cybersecurity program advances computer security preparedness and the response to cyberattacks and incidents. The program includes activities to secure the federal network, respond to incidents, disseminate actionable information, and collaborate with private sector partners to secure critical infrastructure. This program supports the implementation of government-wide deployment of hardware and software systems to prevent and detect incidents, response to incidents at federal and private entities, and collaboration with the private sector to increase the security and resiliency of critical networks. The program also coordinates cybersecurity education for the federal workforce.

Strategic Measures

Measure: Percent of annual risk and vulnerability assessments completed for twenty-three cabinet level agencies and one-third of all non-cabinet level agencies[1]					
Description: This measure assesses how many risk and vulnerability assessments (RVAs) DHS provides each year and compares that result to the total number of targeted federal, civilian Executive Branch agencies for that year. Each year, DHS will aim to assess 23 cabinet level agencies and 1/3 of the remaining 102 federal, civilian Executive Branch agencies. Each targeted cabinet level agency will receive an annual RVA, and the other targeted agencies will receive triennial RVAs. DHS leverages cybersecurity assessment methodologies, commercial best practices and threat intelligence integration to conduct the RVAs that enables cybersecurity stakeholders to better develop decision making and risk management guidance.					
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	---	---	50%	60%	40%	45%
Result:	---	---	42%	35%	TBD	TBD

---

[1] In FY17 a new prioritization for assessments was rolled out. This prioritization is based on time on a waitlist, a special leadership request, an incident occurring, and calculated risk to each critical infrastructure sector. DHS has modified the targets based on this change.

Measure: Percent of incidents detected by the U.S. Computer Emergency Readiness Team for which targeted agencies are notified within 30 minutes

Description: The United States Computer Emergency Readiness Team (US-CERT) detects malicious cyber activity targeting federal agencies. This measure assesses the percent of incidents directed at federal agencies and detected by the US-CERT for which agencies are informed of this malicious activity within 30 minutes. This measure demonstrates US-CERT's ability to share situational awareness of malicious activity with its federal agency stakeholders through the EINSTEIN intrusion detection systems and other tools. The numerator for this measure is the number of notifications within 30 minutes and the denominator is the total of incidents detected.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	90.0%	92.0%	94.0%	96.0%	98.0%	100.0%
Result:	87.2%	96.6%	97.0%	---	TBD	TBD

Measure: Percent of incidents detected or blocked by EINSTEIN intrusion detection and prevention systems that are attributed to Nation State activity

Description: This measure demonstrates the EINSTEIN intrusion detection and prevention systems' ability to detect and block the most significant malicious cyber activity by Nation States on Federal civilian networks. Nation States possess the resources and expertise to not only develop sophisticated cyber attacks but sustain them over long periods of time. Thus the indicators that EINSTEIN deploys to detect and block malicious cyber activity should focus on methods and tactics employed by Nation States. The overall percentage of incidents related to Nation State activity is expected to increase through greater information sharing with partners and improved indicator development, which will result in better incident attribution.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	---	---	---	20%	21%
Result:	---	---	---	---	TBD	TBD

Measure: Percent of participating federal, civilian executive branch agencies for which Continuous Diagnostics and Mitigation (CDM) tools to monitor what is happening on their networks have been made available

Description: This performance measure assesses the extent to which DHS has contractually made available Continuous Diagnostics and Mitigation (CDM) tools to monitor events on their networks to participating federal civilian executive branch agencies. Once DHS has made the tools available through contract award, agencies must still take action to deploy and operate CDM on their networks. By making CDM tools available to agencies, they will be able to more effectively manage coordinated threats to their network.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	---	---	97%	95%	100%
Result:	---	---	---	0%	TBD	TBD

Measure: Percent of respondents indicating that operational cybersecurity information products provided by DHS are helpful

Description: This measure assesses whether the products that the DHS National Cybersecurity and Communications Integration Center (NCCIC) provides are helpful for its customers. A customer survey will be used to acquire data on how helpful information provided by the NCCIC is for its stakeholders.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	---	---	78%	90%	90%
Result:	---	---	---	92%	TBD	TBD

Measure: Percent of significant (critical and high) vulnerabilities identified by DHS cyber hygiene scanning of federal networks that are mitigated within the designated timeline

Description: This measure calculates the percent of significant (critical and high) vulnerabilities identified through cyber hygiene scanning that are mitigated within the specified timeline. For critical vulnerabilities the timeline is 15 days and for high vulnerabilities the timeline is 30 days. DHS provides cyber hygiene scanning to agencies to aid in identifying and prioritizing vulnerabilities based on their severity for agencies to make risk based decisions regarding their network security. Identifying and mitigating the most serious vulnerabilities on a network in a timely manner is a critical component of an effective cybersecurity program.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	---	---	---	80%	90%
Result:	---	---	---	---	TBD	TBD

Management Measures

Measure: Percent of malware submissions for which a report is generated within 15 minutes

Description: This performance measure assesses how quickly the National Cybersecurity and Communications Integration Center analyzes and generates a report for malware submitted through automated processes to the United States Computer Emergency Readiness Team's (US-CERT) Advanced Malware Analysis Center (AMAC).

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	75%	80%	100%	100%	100%	100%
Result:	94%	100%	100%	88%	TBD	TBD

Measure: Percent of targeted stakeholders participating in National Cyber Exercise and Planning Program cyber exercises per year

Description: This measure is calculated by dividing the number of cybersecurity exercises per year by 65, which is the number required to exercise each priority stakeholder once every two years. The primary stakeholders, totaling 130, include: all CFO Act Federal Departments and Agencies (24), the 54 States and Territories; members of the 16 critical infrastructure sectors; and members of the International Watch and Warning Network, European Commission, plus two other bilateral countries.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019

Measure: Percent of targeted stakeholders participating in National Cyber Exercise and Planning Program cyber exercises per year						
Target:	---	---	70%	80%	85%	87%
Result:	---	---	94%	89%	TBD	TBD

Emergency Communications: The Emergency Communications program is responsible for advancing the Nation's interoperable emergency communications capabilities to enable first responders and government officials to continue to communicate in the event of disasters.

Measure: Percent of calls made by National Security/Emergency Preparedness users during emergency situations that DHS ensured were connected						
Description: This measure gauges the Government Emergency Telecommunications Service (GETS) call completion rate. The GETS call completion rate is the percent of calls that a National Security/Emergency Preparedness (NS/EP) user completes via public telephone network, landline, or wireless, to communicate with the intended user/location/system/etc, under all-hazard scenarios. Hazard scenarios include terrorist attacks or natural disasters such as a hurricane or an earthquake.						
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	100.0%	97.0%	97.5%	98.0%	98.5%	99.0%
Result:	99.3%	99.3%	99%	99.3%	TBD	TBD

Measure: Percent of States and Territories with operational communications capabilities at the highest levels relative to Threat and Hazard Identification and Risk Assessment (THIRA) preparedness targets						
Description: This measure uses the Threat and Hazard Identification and Risk Assessment (THIRA) and State Preparedness Report (SPR) process, conducted by FEMA on an annual basis, to identify the level of Operational Communications capabilities reported by the 56 States and Territories inclusive of applicable Urban Areas. The measure reflects the level of increase or decrease in those capabilities relative to targets established through the THIRA. The result is calculated by identifying the number of States and Territories scoring a "4" or "5" on a 5-point scale where1 indicates little-to-no capability and 5 indicates that they have all or nearly all of the Operational Communications capabilities required to meet their targets. That number forms the numerator, which is divided by 56 and multiplied by 100 to achieve the percentage.						
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	---	---	55%	56%	57%	58%
Result:	---	---	55%	55%	TBD	TBD

Federal Protective Service: The Federal Protective Service protects federal facilities, their occupants, and visitors by providing law enforcement and protective security services. The program provides uniformed law enforcement and armed contract security guard presence, conducts facility security assessments, and designs countermeasures for tenant agencies in order to reduce risks to federal facilities and occupants.

Measure: Percent of contract security force evaluations conducted at high-risk facilities resulting in no countermeasure-related deficiencies

Description: This performance measure provides the percentage of Facility Security Level IV facilities identified with no countermeasure-related deficiencies during contract security force evaluations conducted during each fiscal year quarter. Countermeasure-related deficiencies are the total of covert security testing (investigative operation used to identify deficiencies in security countermeasures, training, procedures, and technology) deficiencies and countermeasure (access control, alarms, barriers, communications, guard force, screening, and surveillance) deficiencies identified during post inspections. Level IV is defined as high risk based on the Interagency Security Committee Standards as having over 450 federal employees; high volume of public contact; more than 150,000 square feet of space; tenant agencies that may include high-risk law enforcement and intelligence agencies, courts, judicial offices, and highly sensitive government records.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	98%	98%	98%	98%	85%	85%
Result:	97%	97%	98%	83%	TBD	TBD

Measure: Percent of Facility Security Committee Chairs (or designated officials) satisfied with the level of security provided at federal facilities

Description: This measure assesses the effectiveness of protection and security services provided by the Federal Protective Service (FPS) to Facility Security Committee (FSC) Chairs, or their designated officials, through surveying their overall customer satisfaction. The FSC Chairperson is the representative of the primary tenant and is the primary customer of FPS Facility Security Assessments and countermeasure consultation. This will enable FPS to make better informed decisions to enhance the services it provides to its tenants.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	---	---	78%	79%	80%
Result:	---	---	---	77%	TBD	TBD

Measure: Percent of high-risk facilities that receive a facility security assessment in compliance with the Interagency Security Committee (ISC) schedule

Description: This measure reports the percentage of high risk (Facility Security Level 3, 4 and 5) facilities that receive a facility security assessment (FSA) in compliance with the ISC schedule. An FSA is a standardized comprehensive risk assessment that examines credible threats to federal buildings and the vulnerabilities and consequences associated with those threats. Credible threats include crime activity or potential acts of terrorism. Each facility is assessed against a baseline level of protection and countermeasures are recommended to mitigate the gap identified to the baseline or other credible threats and vulnerabilities unique to a facility. Requirements for the frequency of federal building security assessments are driven by the ISC standards with high risk facility assessments occurring on a three year cycle.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	100%	100%	100%	100%	100%	100%
Result:	93%	100%	96%	100%	TBD	TBD

Management Measures

Measure: Percent of Rapid Protection Force deployments to enhance federal facility security that occur within the agreed upon timeframe					
Description: This measure reflects the Rapid Protection Force's (RPF) role in effectively responding quickly and efficiently with an emphasis on protecting government facilities and personnel within 24 hours or an agreed upon time, to mitigate threats, stabilize incidents, and in support of special events. The 24 hour, or agreed upon response time, enables an enhanced Federal Protective Service (FPS) presence and rapid protection capabilities at federal facilities.					
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	---	---	---	100%	100%	100%
Result:	---	---	---	100%	TBD	TBD

Measure: Percent of required risk-based post visits completed for federal facilities					
Description: This measure will report the percent achievement by FPS in completing Protective Security Officer (PSO) post visits. The number of post visits conducted per year are set annually, per directives, guiding protective security force performance monitoring through visits. FPS sets policy to ensure that countermeasures are effectively functioning as designed and that the contracted service is in compliance with contract requirements. FPS post visits review compliance in the operation of post inspections including: identification of the individual on duty; post desk book; cleanliness and orderly operation of the post; PSO knowledge of the post orders; and PSO performance of duties in accordance with the post orders (to include professionalism, proper certifications and licenses). When technical countermeasures are deployed at a post, the effectiveness of that countermeasure is also assessed.					
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	100%	100%	100%	100%	95%	99%
Result:	74%	100%	100%	100%	TBD	TBD

Infrastructure Protection: The Federal Protective Service protects federal facilities, their occupants, and visitors by providing law enforcement and protective security services. The program provides uniformed law enforcement and armed contract security guard presence, conducts facility security assessments, and designs countermeasures for tenant agencies in order to reduce risks to federal facilities and occupants.

Measure: Percent of customers implementing at least one cybersecurity assessment recommendation to improve critical infrastructure and federal network security						
Description: The DHS National Cybersecurity and Communications Integration Center (NCCIC) administers cybersecurity vulnerability assessments and provides mitigation recommendations to customers, including federal, critical infrastructure owners and operators, and state, local, tribal, and territorial (SLTT) partners. This measure provides insight into the percentage of customers reporting implementation of one or more improvements based on recommendations following an assessment.						
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	55.0%	60%	100%	100%	85%	85%
Result:	63%	100%	100%	91%	TBD	TBD

Measure: Percent of facilities that are likely to integrate vulnerability assessment or survey information into security and resilience enhancements						
Description: This measure demonstrates the percent of facilities that are likely to enhance their security and resilience by integrating Infrastructure Protection vulnerability assessment or survey information. Providing facilities with vulnerability information allows them to understand and reduce risk of the Nation's critical infrastructure.						
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	65%	80%	80%	80%	80%	80%
Result:	89%	90%	90%	92%	TBD	TBD

Measure: Percent of performance standards implemented by the highest risk chemical facilities and verified by DHS						
Description: This measure reports the percent of applicable risk based performance standards (RBPS) that are approved and implemented within site security plans (SSPs) or alternative security programs (ASPs) for Tier 1 and Tier 2 facilities that are compliant with the Chemical Facility Anti-terrorism Standards (CFATS) regulation. Following submission of a proposed SSP/ASP by a covered facility, the CFATS regulatory authority will conduct an "authorization inspection" of the covered facility to verify that the SSP/ASP is compliant with the CFATS regulation. For this measure, SSPs/ASPs determined to meet the RBPS requirements with current and planned measures will be approved. Upon approval of its SSP/ASP, the covered facility is required to fully implement the existing measures that are described in the SSP/ASP.						
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	97%	95%	95%	95%	95%	95%
Result:	78%	93%	97%	93%	TBD	TBD

Measure: Percent of respondents reporting that DHS critical infrastructure information will inform their decision making on risk mitigation and resilience enhancements

Description: This measure will report the percent of critical infrastructure partners who participated in education, training, exercise, and information sharing activities developed or coordinated by the Office of Infrastructure Protection and indicated that the information and products received are useful for informing their risk management programs and influencing future decision-making regarding safety and/or security improvements and/or resilience enhancements at their facilities. Active outreach efforts and effective public-private partnerships on critical infrastructure issues help to reduce risk and increase resilience across the country.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	---	71%	74%	77%	80%
Result:	---	---	92%	95%	TBD	TBD

Management Measures

Measure: Average response from course participants reporting that the counter-improvised explosive device (IED) training provided by DHS enhances their preparedness to perform their jobs

Description: This measure provides an indication of the degree to which the Office of Bombing Prevention's (OBP) counter-IED training enhances the preparedness of a diverse array of homeland security stakeholders (Federal, state, local, and private sector partners) to perform their respective role(s) in preventing, protecting against, responding to, and/or mitigating bombing incidents. Training participants complete a voluntary questionnaire at the completion of every training iteration rating the degree to which the training increased their preparedness. This ensures that OBP's training effectively contributes to the OBP mission of enhancing national capabilities to prevent, protect against, respond to, and mitigate bombing incidents, in support of departmental and national objectives defined through the DHS Strategic Plan and Presidential Directive.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	---	---	4.0	4.0	4.0
Result:	---	---	---	4.7	TBD	TBD

Measure: Percent of performance standards implemented by high risk (Tier 3 and Tier 4) chemical facilities and verified by DHS

Description: This measure reports the percent of applicable risk based performance standards (RBPS) that are approved and implemented within site security plans (SSPs) or alternative security programs (ASPs) for Tier 3 and Tier 4 facilities that are compliant with the Chemical Facility Anti-Terrorism Standards (CFATS) regulation. Following submission of a proposed SSP/ASP by a covered facility, the CFATS regulatory authority will conduct an "authorization inspection" of the covered facility to verify that the SSP/ASP is compliant with the CFATS regulation. For this measure, SSPs/ASPs determined to meet the RBPS requirements with current and planned measures will be approved. Upon approval of its SSP/ASP, the covered facility is required to fully implement the measures that are described in the SSP/ASP.

Fiscal Year:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Target:	---	45%	75%	95%	95%	95%
Result:	---	73%	94%	79%	TBD	TBD

Measure: Percent of respondents reporting that the counter improvised explosive device information provided by DHS is a valuable resource to support their responsibilities						
Description: This measure provides an indication of the value of information sharing via the Technical Resource for Incident Prevention (TRIPwire) to a diverse array of homeland security stakeholders (federal, state, local, territorial, tribal, and private sector partners) related to improvised explosive device (IED) threats and corresponding preparedness measures. TRIPwire users complete voluntary questionnaires on a quarterly basis rating their satisfaction with the utility of the information provided by TRIPwire. This ensures that TRIPwire's information sharing capabilities are keeping pace with what users seek and need to support their responsibilities.						
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	---	75%	78%	78%	78%	78%
Result:	---	84%	97%	87%	TBD	TBD

Integrated Operations: The Integrated Operations program ensures domain awareness through the sustainment of command and control, coordination, information sharing, and situational awareness in support of multiple mission programs. It also supports occupational health and safety.

Strategic Measures

Measure: Percent of survey respondents that were satisfied or very satisfied with the timeliness and relevance of cyber and infrastructure analysis based products						
Description: The Office of Cyber and Infrastructure Analysis (OCIA) produces infrastructure analytic products for DHS customers to make meaningful risk investment and resource allocation decisions in both crisis and steady state environments in order to reduce the impacts of infrastructure disruptions. In order for our customers to apply the knowledge gained from our products they must have the right information in a timely manner to inform decisions. Survey respondents comment on their level of satisfaction with both timeliness and relevance (two separate questions) of OCIA's analytic products which, in turn, provides OCIA with feedback that will be used to improve future products. OCIA averages the two responses for one metric. This is relevant to OCIA achieving its mission since the purpose of OCIA's analytic products are to inform decision-makers. Their feedback matters to the core of OCIA's purpose and is important to help OCIA gauge its progress toward accomplishing its mission.						
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	---	---	80%	90%	92%	94%
Result:	---	---	93%	93%	TBD	TBD

Office of Biometric Identity Management: The Office of Biometric Identity Management provides biometric identification services to help federal, state, and local government partners to accurately identify people they encounter to determine if they pose a risk to the U.S. This program supplies the technology for collecting and storing biometric data. The program shares information, provides analyses, updates biometric and terrorist watchlists, and ensures the integrity of the data.

Management Measures

Measure: Average biometric watch list search times for queries from ports of entry (in seconds)					
Description: This measure reports the average response time of biometric watchlist queries processed through the Automated Biometric Identification System (IDENT) system in response to queries from ports of entry (POE) where fingerprints are captured. The target is less than 10 seconds to provide critical watchlist and identity screening information to inspectors in a timely manner to facilitate traveler processing.					
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00
Result:	6.54	6.32	6.60	6.16	TBD	TBD

Measure: Average biometric watch list search times for queries from U.S. consulates (in minutes)					
Description: This measure is used to determine the average amount of time required to complete an automated search processed through the Office of Biometric Identity Management (OBIM) Automated Biometric Identification System (IDENT) system in response to queries from consular offices worldwide where fingerprints are captured as part of the BioVisa form process. The service level agreement with the Department of State is less than 15 minutes to provide critical identity and watch list information in a timely manner to not impede traveler processing. In light of past performance, the program has set a target of processing BioVisa searches within 5 minutes.					
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Result:	1.06	4.05	1.09	3.34	TBD	TBD

Measure: Percent of daily travelers referred to additional screening due to false fingerprint matches					
Description: OBIM will measure the percent of travelers whose biometric information are queried through OBIM's biometric matching systems and are referred to secondary screening because of false matches. This will include travelers whose information was incorrectly matched to somebody on a watchlist ("watchlist false accepts") and travelers whose fingerprints were incorrectly matched to other peoples' fingerprints ("finger print 1-1 mismatches"). This information is collected daily by OBIM based on screenings conducted at ports of entry by Customs and Border Protection.					
Fiscal Year:	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Target:	<=0.31%	<=0.30%	<=0.20%	<=0.19%	<=0.18%	<=0.17%
Result:	0.10%	0.10%	0.11%	0.12%	TBD	TBD

National Protection and Programs Directorate
Budget Comparison and Adjustments
Budget Comparison with FY 2018 Annualized CR

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 Annualized CR	FY 2018 President's Budget	FY 2019 President's Budget
Operations and Support	**$1,372,268**	**$1,362,949**	**$1,455,275**	**$1,470,340**
Mission Support	$69,408	$68,937	$87,517	$78,103
Cybersecurity	$669,414	$664,868	$720,557	$713,055
Cyber Readiness and Response	$196,904	$195,567	$200,965	$224,396
NCCIC Operations	$108,402	$107,666	$116,471	$140,049
NCCIC Planning and Exercises	$88,502	$87,901	$84,494	$84,347
Cyber Infrastructure Resilience	$44,053	$43,754	$41,943	$30,059
Cybersecurity Advisors	$12,970	$12,882	$14,693	$6,860
Enhanced Cybersecurity Services	$16,950	$16,835	$17,157	$13,097
Cybersecurity Education & Awareness	$14,133	$14,037	$10,093	$10,102
Federal Cybersecurity	$428,457	$425,547	$477,649	$458,600
Federal Network Resilience	$35,013	$34,775	$42,766	$49,834
Continuous Diagnostics and Mitigation	$7,565	$7,514	$93,780	$112,089
National Cybersecurity Protection System	$385,879	$383,258	$341,103	$296,677
Infrastructure Protection	$186,292	$185,027	$187,955	$206,035
Infrastucture Capacity Building	$116,735	$115,942	$115,515	$129,182
Sector Risk Management	$42,396	$42,108	$44,491	$55,859
Protective Security Advisors	$39,723	$39,453	$35,677	$39,114
Bombing Prevention	$15,070	$14,968	$14,739	$14,752
Infrastructure Information and Sensitive Data Protection	$19,546	$19,413	$20,608	$19,457
Infrastructure Security Compliance	$69,557	$69,085	$72,440	$76,853
Emergency Communications	$102,041	$101,349	$113,921	$115,696
Emergency Communications Preparedness	$44,097	$43,798	$49,966	$51,785
Priority Telecommunications Services	$57,944	$57,551	$63,955	$63,911
GETS/WPS/SRAS/TSP	$55,730	$55,352	$56,319	$56,293
Next Generation Networks Priority Services	$2,214	$2,199	$7,636	$7,618
Integrated Operations	$109,684	$108,938	$125,896	$127,170
Cyber and Infrastructure Analysis	$41,880	$41,595	$43,322	$44,683

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 Annualized CR	FY 2018 President's Budget	FY 2019 President's Budget
National Infrastructure Simulation Analysis Center (NISAC)	$18,650	$18,523	$8,912	$8,912
Infrastructure Analysis	$23,230	$23,072	$34,410	$35,771
Critical Infrastructure Situational Awareness	$16,176	$16,066	$21,222	$23,429
Stakeholder Engagement and Requirements	$41,959	$41,674	$46,904	$45,127
Strategy, Policy, and Plans	$9,669	$9,603	$14,448	$13,931
Office of Biometric Identity Management	$235,429	$233,830	$219,429	$230,281
Identity and Screening Program Operations	$71,954	$71,465	$68,826	$69,590
IDENT/Homeland Advanced Recognition Technology Operations	$163,475	$162,365	$150,603	$160,691
Procurement, Construction, and Improvements	**$440,035**	**$437,047**	**$335,033**	**$302,964**
Cybersecurity	$299,180	$297,149	$241,309	$235,626
Continuous Diagnostics and Mitigation	$217,409	$215,933	$185,180	$125,548
National Cybersecurity Protection System	$81,771	$81,216	$56,129	$110,078
Emergency Communications	$88,055	$87,457	$48,905	$42,551
Next Generation Networks Priority Services	$88,055	$87,457	$48,905	$42,551
Biometric Identity Management	$52,800	$52,441	$40,100	$20,000
IDENT/Homeland Advanced Recognition Technology	$52,800	$52,441	$40,100	$20,000
Homeland Advanced Recognition Technology (HART)	$52,800	$52,441	$40,100	$20,000
Integrated Operations Assets and Infrastructure	-	-	$500	-
Modeling Capability Transition Environment	-	-	$500	-
Infrastructure Protection	-	-	$4,219	$4,787
Infrastructure Protection (IP) Gateway	-	-	$4,219	$4,787
Research and Development	**$6,469**	**$6,425**	**$11,126**	**$47,847**
Cybersecurity	$2,030	$2,016	$4,695	$41,416
Infrastructure Protection	$4,439	$4,409	$2,431	$2,431
Integrated Operations R&D	-	-	$4,000	$4,000
Federal Protective Service	**$1,451,078**	**$1,451,078**	**$1,476,055**	**$1,527,110**
FPS Operations	$368,892	$368,892	$360,079	$359,196
Operating Expenses	$368,892	$368,892	$360,079	$359,196
Countermeasures	$1,082,186	$1,082,186	$1,115,976	$1,167,914
Protective Security Officers	$1,059,825	$1,059,825	$1,071,286	$1,121,883
Technical Countermeasures	$22,361	$22,361	$44,690	$46,031
Total	**$3,269,850**	**$3,257,499**	**$3,277,489**	**$3,348,261**

National Protection and Programs Directorate
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Operations and Support	2,389	1,867	$1,372,268	2,557	2,085	$1,455,275	2,607	2,100	$1,470,340	50	15	$15,065
Procurement, Construction, and Improvements	-	-	$440,035	-	-	$335,033	-	-	$302,964	-	-	($32,069)
Research and Development	-	-	$6,469	-	-	$11,126	-	-	$47,847	-	-	$36,721
Federal Protective Service	1,602	1,507	$1,451,078	1,602	1,507	$1,476,055	1,602	1,507	$1,527,110	-	-	$51,055
Total	**3,991**	**3,374**	**$3,269,850**	**4,159**	**3,592**	**$3,277,489**	**4,209**	**3,607**	**$3,348,261**	**50**	**15**	**$70,772**
Subtotal Discretionary - Appropriation	2,389	1,867	$1,818,772	2,557	2,085	$1,801,434	2,607	2,100	$1,821,151	50	15	$19,717
Subtotal Discretionary - Offsetting Fee	1,602	1,507	$1,451,078	1,602	1,507	$1,476,055	1,602	1,507	$1,527,110	-	-	$51,055

The National Protection and Programs Directorate (NPPD) leads the efforts to protect the Nation's critical infrastructure against cyber and physical threats, including terrorist attacks, cyber incidents, natural disasters, and other catastrophic incidents. In support of these activities, the FY 2019 President's Budget provides $1.8B in discretionary funds, including $995M to improve security of U.S. cyber infrastructure through collaboration with public, private, and international partners; $319M to protect the Nation's critical infrastructure; $158M to ensure emergency communications are available to Federal, State, local, tribal, and territorial entities, and $253M for the Office of Biometric Identity Management. Highlights from the FY 2019 request include:

- $407M for the National Cybersecurity Protection System/EINSTIEN to continue deploying new intrusion prevention, information sharing, and analytic capabilities to Federal civilian departments and agencies.
- $238M for Continuous Diagnostics and Mitigation (CDM), which will allow DHS and Federal agencies to continuously manage their boundaries, security events, build security into system lifecycles, and enhance data protection.
- $50M for Next Generation Networks to maintain the number of wireless carriers deploying Priority Telecommunications Services, enabling the solution to maintain the same coverage across the U.S. regardless of the network technology.
- $224M for the National Cybersecurity and Communications Integration Center to provide additional threat assessment capabilities, support the growth in demand for analytical products and 24x7x365 operational staffing, and maintain readiness to execute national security/emergency preparedness.
- Continued support for Federal Protective Service's Rapid Protection Force (RPF), a professionally trained and equipped cadre of experienced law enforcement personnel that can respond to heightened threat situations.

Figure 1: NPPD Request by PPAs ($K):

Operations and Support ($000)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	Defense %	Non Defense %
Cybersecurity (Level 1)					
Cyber Readiness and Response (Level 2)	**196,904**	**200,965**	**224,396**	**100%**	**0%**
NCCIC Operations	108,402	116,471	140,049	100%	0%
[CERT]	[86,638]	[93,921]	[117,556]		
NCCIC Planning and Exercises	88,502	84,494	84,347	100%	0%
[CERT]	[61,607]	[63,775]	[64,297]		
Cyber Infrastructure Resilience (Level 2)	**44,053**	**41,943**	**30,059**	**100%**	**0%**
Cybersecurity Advisors	12,970	14,693	6,860	100%	0%
Enhanced Cybersecurity Services	16,950	17,157	13,097	100%	0%
Cybersecurity Education and Awareness	14,133	10,093	10,102	100%	0%
Federal Cybersecurity (Level 2)	**428,457**	**477,649**	**458,600**	**100%**	**0%**
Federal Network Resilience	35,013	42,766	49,834	100%	0%
Continuous Diagnostics & Mitigation	7,565	93,780	112,089	100%	0%
National Cybersecurity Protection System	385,879	341,103	296,677	100%	0%
Subtotal, Cybersecurity	**669,414**	**720,557**	**713,055**		
Infrastructure Protection (Level 1)					
Infrastructure Capacity Building (Level 2)	**116,735**	**115,515**	**129,182**	**100%**	**0%**
Sector Risk Management	42,396	44,491	55,859	100%	0%
Protective Security Advisors	39,723	35,677	39,114	100%	0%
Bombing Prevention	15,070	14,739	14,752	100%	0%
Infrastructure Information & Sensitive Data Protection	19,546	20,608	19,457	100%	0%
Infrastructure Security Compliance (Level 2)	**69,557**	**72,440**	**76,853**	**100%**	**0%**
Subtotal, Infrastructure Protection	**186,292**	**187,955**	**206,035**		
Emergency Communications (Level 1)					
Emergency Communications Preparedness (Level 2)	**44,097**	**49,966**	**51,785**	**100%**	**0%**
Priority Telecommunications Services (Level 2)	**57,944**	**63,955**	**63,911**	**100%**	**0%**
GETS/WPS/SRAS/TSP	55,730	56,319	56,293	100%	0%
NGN-Priority Services	2,214	7,636	7,618	100%	0%
Subtotal, Emergency Communications	**102,041**	**113,921**	**115,696**		

Operations and Support ($000) Continued.					
Integrated Operations (Level 1)					
Cyber & Infrastructure Analysis (Level 2)	**41,880**	**43,322**	**44,683**	**100%**	**0%**
National Infrastructure Simulation Analysis Center	18,650	8,912	8,912	100%	0%
Infrastructure Analysis	23,230	34,410	35,771	100%	0%
Critical Infrastructure Situational Awareness (Level 2)	**16,176**	**21,222**	**23,429**	**91%**	**9%**
[Defense]	14,720	19,312	21,320		
[Non-Defense]	1,456	1,910	2,109		
Stakeholder Engagements & Requirements (Level 2)	**41,959**	**46,904**	**45,127**	**90%**	**10%**
[Defense]	37,763	42,213	40,614		
[Non-Defense]	4,196	4,690	4,513		
Strategy, Policy, & Plans (Level 2)	**9,669**	**14,448**	**13,931**	**66%**	**34%**
[Defense]	6,382	9,536	9,194		
[Non-Defense]	3,287	4,912	4,737		
Subtotal, Integrated Operations	**109,684**	**125,896**	**127,170**		
Office of Biometric Identity Management (Level 1)					
Identity & Screening Program Operations (Level 2)	**71,954**	**68,826**	**69,590**	**0%**	**100%**
IDENT/HART Operations & Maintenance (Level 2)	**163,475**	**150,603**	**160,691**	**0%**	**100%**
Subtotal, Office of Biometric Identity Management	**235,429**	**219,429**	**230,281**		
Mission Support (Level 1)				31%	69%
[Defense]	21,516	27,130	24,212		
[Non-Defense]	47,892	60,387	53,891		
Subtotal, Mission Support	**69,408**	**87,517**	**78,103**		
Total Operations and Support	**1,372,267**	**1,455,275**	**1,470,340**		
[Defense]	1,080,007	1,163,946	1,174,809		
[Non-Defense]	292,260	291,328	295,531		

Procurement, Construction and Improvements ($000)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	Defense %	Non Defense %
Cybersecurity (Level 1)					
Federal Cybersecurity (Level 2)	**299,180**	**241,309**	**235,626**	**100%**	**0%**
Continuous Diagnostics & Mitigation	217,409	185,180	125,548	100%	0%
National Cybersecurity Protection System	81,771	56,129	110,078	100%	0%
Subtotal, Cybersecurity	**299,180**	**241,309**	**235,626**		
Infrastructure Protection (Level 1)					
Infrastructure Capacity Building (Level 2)	**0**	**4,219**	**4,787**	**100%**	**0%**
Infrastructure Protection PC&I (IP Gateway)	0	4,219	4,787	100%	0%
Subtotal, Infrastructure Protection	**0**	**4,219**	**4,787**		
Emergency Communications (Level 1)					
Priority Telecommunications Services (Level 2)	**88,055**	**48,905**	**42,551**	**100%**	**0%**
NGN-Priority Services	88,055	48,905	42,551	100%	0%
Subtotal, Emergency Communications	**88,055**	**48,905**	**42,551**		
Integrated Operations (Level 1)					
Cyber & Infrastructure Analysis (Level 2)	**0**	**500**	**0**	**100%**	**0%**
Integrated Operations Assets and Infrastructure	0	500	0	100%	0%
Subtotal, Integrated Operations	**0**	**500**	**0**		
Office of Biometric Identity Management (Level 1)	52,800	40,100	20,000		
IDENT/HART (Level 2)	**52,800**	**40,100**	**20,000**	**0%**	**100%**
Subtotal, Office of Biometric Identity Management	**52,800**	**40,100**	**20,000**		
Total Procurement Construction and Improvements	**440,035**	**335,033**	**302,964**		
[Defense]	387,235	294,933	282,964		
[Non-Defense]	52,800	40,100	20,000		

Research and Development ($000)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	Defense %	Non Defense %
Cybersecurity (Level 1)					
Cybersecurity (Level 2)	**2,030**	**4,695**	**41,416**	**100%**	**0%**
Cybersecurity R&D	2,030	4,695	41,416	100%	0%
Subtotal, Cybersecurity	**2,030**	**4,695**	**41,416**		
Infrastructure Protection (Level 1)					
Infrastructure Protection (Level 2)	**4,439**	**2,431**	**2,431**	**100%**	**0%**
Infrastructure Protection R&D	4,439	2,431	2,431	100%	0%
Subtotal, Infrastructure Protection	**4,439**	**2,431**	**2,431**		
Integrated Operations (Level 1)					
Cyber & Infrastructure Analysis (Level 2)	**0**	**4,000**	**4,000**	**100%**	**0%**
Integrated Operations R&D	0	4,000	4,000	100%	0%
Subtotal, Integrated Operations	**0**	**4,000**	**4,000**		
Total Research and Development	**6,469**	**11,126**	**47,847**		
[Defense]	6,469	11,126	47,847		
[Non-Defense]	0	0	0		

Federal Protective Service ($000)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	Defense %	Non Defense %
FPS Operations (Level 1)					
Operating Expenses (Level 2)	368,892	360,079	359,196	0%	100%
Subtotal, FPS Operations	368,892	360,079	359,196		
Countermeasures (Level 1)					
Protective Security Officers (Level 2)	1,059,825	1,071,286	1,121,883	0%	100%
Technical Countermeasures (Level 2)	22,361	44,690	46,031	0%	100%
Subtotal, Countermeasures	1,082,186	1,115,976	1,167,914		
Total Federal Protective Service	1,451,078	1,476,055	1,527,110		
[Defense]	0	0	0		
[Non-Defense]	1,451,078	1,476,055	1,527,110		

Total Request	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Operations and Support	**1,372,267**	**1,455,275**	**1,470,340**
[Defense]	1,080,007	1,163,946	1,174,809
[Non-Defense]	292,260	291,328	295,531
Procurement Construction and Improvements	**440,035**	**335,033**	**302,964**
[Defense]	387,235	294,933	282,964
[Non-Defense]	52,800	40,100	20,000
Research and Development	**6,469**	**11,126**	**47,847**
[Defense]	6,469	11,126	47,847
[Non-Defense]	0	0	0
Federal Protective Service	**1,451,078**	**1,476,055**	**1,527,110**
[Defense]	0	0	0
[Non-Defense]	1,451,078	1,476,055	1,527,110
TOTAL	**3,269,849**	**3,277,489**	**3,348,261**
[Defense]	1,473,711	1,470,005	1,505,620
[Non-Defense]	1,796,138	1,807,483	1,842,641

National Protection and Programs Directorate
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$3,269,850**	**$3,277,489**	**$3,348,261**
Carryover and/or Recoveries (Actual/Estimates/Projections)	$206,717	$384,127	$88,223
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$3,476,567**	**$3,661,616**	**$3,436,484**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$3,476,567**	**$3,661,616**	**$3,436,484**
Obligations (Actual/Projections/Estimates)	$2,966,938	$3,485,732	$3,289,359
Personnel: Positions and FTE			
Enacted/Request Positions	3,991	4,159	4,209
Enacted/Request FTE	3,374	3,592	3,607
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	3,877	4,159	4,209
FTE (Actual/Estimates/Projections)	3,299	3,592	3,607

National Protection and Programs Directorate
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Operations and Support	2,389	1,867	$311,219	$166.66	2,557	2,085	$343,601	$164.77	2,607	2,100	$347,495	$165.45	50	15	$3,894	$0.68
Federal Protective Service	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28
Total	**3,991**	**3,374**	**$512,177**	**$151.78**	**4,159**	**3,592**	**$548,389**	**$152.65**	**4,209**	**3,607**	**$555,727**	**$154.05**	**50**	**15**	**$7,338**	**$1.4**
Discretionary - Appropriation	2,389	1,867	$311,219	$166.66	2,557	2,085	$343,601	$164.77	2,607	2,100	$347,495	$165.45	50	15	$3,894	$0.68
Discretionary - Offsetting Fee	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$354,023	$372,866	$383,284	$10,418
11.3 Other than Full-Time Permanent	$8,741	$10,181	$9,339	($842)
11.5 Other Personnel Compensation	$27,609	$28,731	$28,813	$82
11.8 Special Personal Services Payments	$58	$59	$59	-
12.1 Civilian Personnel Benefits	$121,723	$136,528	$134,209	($2,319)
13.0 Benefits for Former Personnel	$23	$24	$23	($1)
Total - Personnel Compensation and Benefits	**$512,177**	**$548,389**	**$555,727**	**$7,338**
Positions and FTE				
Positions - Civilian	3,991	4,159	4,209	50
FTE - Civilian	3,374	3,592	3,607	15

National Protection and Programs Directorate
Non Pay Budget Exhibits
Non Pay summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Operations and Support	$1,061,049	$1,111,674	$1,122,845	$11,171
Procurement, Construction, and Improvements	$440,035	$335,033	$302,964	($32,069)
Research and Development	$6,469	$11,126	$47,847	$36,721
Federal Protective Service	$1,250,120	$1,271,267	$1,318,878	$47,611
Total	**$2,757,673**	**$2,729,100**	**$2,792,534**	**$63,434**
Discretionary - Appropriation	$1,507,553	$1,457,833	$1,473,656	$15,823
Discretionary - Offsetting Fee	$1,250,120	$1,271,267	$1,318,878	$47,611

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$19,572	$22,101	$22,822	$721
22.0 Transportation of Things	$15,069	$11,506	$14,164	$2,658
23.1 Rental Payments to GSA	$32,693	$40,187	$39,717	($470)
23.2 Rental Payments to Others	$1,594	$2,618	$3,096	$478
23.3 Communications, Utilities, and Misc. Charges	$19,401	$30,870	$33,527	$2,657
24.0 Printing and Reproduction	$319	$232	$324	$92
25.1 Advisory and Assistance Services	$625,729	$527,165	$644,945	$117,780
25.2 Other Services from Non-Federal Sources	$1,145,248	$1,260,947	$1,214,457	($46,490)
25.3 Other Goods and Services from Federal Sources	$523,958	$418,283	$386,315	($31,968)
25.4 Operation and Maintenance of Facilities	$8,467	$6,506	$9,442	$2,936
25.5 Research and Development Contracts	$4,452	$6,971	$2,874	($4,097)
25.6 Medical Care	$6	$4,089	$6	($4,083)
25.7 Operation and Maintenance of Equipment	$243,715	$237,817	$342,807	$104,990
25.8 Subsistence & Support of Persons	$3,551	$6,630	$5,721	($909)
26.0 Supplies and Materials	$3,880	$3,998	$9,502	$5,504
31.0 Equipment	$81,648	$110,805	$39,006	($71,799)
32.0 Land and Structures	$14,271	$21,184	$9,563	($11,621)
41.0 Grants, Subsidies, and Contributions	$14,050	$16,921	$14,050	($2,871)
42.0 Insurance Claims and Indemnities	$49	$270	$196	($74)
94.0 Financial Transfers	$1	-	-	-
Total - Non Pay Object Classes	**$2,757,673**	**$2,729,100**	**$2,792,534**	**$63,434**

National Protection and Programs Directorate
Supplemental Budget Justification Exhibits
Working Capital Fund

Appropriation and PPA *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Operations and Support	**$77,625**	**$74,561**	**$75,700**
Mission Support	$9,449	$8,317	$7,979
Cybersecurity	$31,690	$33,419	$34,704
Infrastructure Protection	$16,242	$13,447	$14,252
Emergency Communications	$5,017	$6,216	$6,207
Integrated Operations	$9,606	$6,896	$6,872
Office of Biometric Identity Management	$5,621	$6,266	$5,686
Federal Protective Service	**$11,350**	**$11,115**	**$10,709**
FPS Operations	$11,350	$11,115	$10,709
Total Working Capital Fund	**$88,975**	**$85,676**	**$86,409**

National Protection and Programs Directorate
Status of Congressionally Requested Studies, Reports and Evaluations

Fiscal Year	Due Date	Reference/Citation	Requirement	Status
FY 2017	5/23/2017	Public Law 115-31, Joint Explanatory Statement, p. 39	5-Year Real Property Plan	Submitted
FY 2017	5/23/2017	Public Law 115-31, Joint Explanatory Statement, p. 39	Defense/Non-Defense Classification	Submitted
FY 2017	9/29/2017	Senate Report 114-264, p. 101.	Intrusions of Information Systems and Critical Infrastructure	With Component
FY 2017	1/12/2017	Public Law 115-31, Joint Explanatory Statement, p. 41	Strategic Plan to Ensure Civilian Federal Networks	With Component

National Protection and Programs Directorate
Authorized/Unauthorized Appropriations

Budget Activity *Dollars in Thousands*	Last year of Authorization	Authorized Level	Appropriation in Last Year of Authorization	FY 2019 President's Budget
	Fiscal Year	**Amount**	**Amount**	**Amount**
Operations and Support	N/A	N/A	N/A	**$1,470,340**
Mission Support				$78,103
Cybersecurity				$713,055
Infrastructure Protection				$206,035
Emergency Communications				$115,696
Integrated Operations				$127,170
Biometric Identity Management				$230,281
Procurement, Construction, and Improvements	N/A	N/A	N/A	**$302,964**
Cybersecurity				$235,626
Infrastructure Protection				$4,787
Emergency Communications				$42,551
Biometric Identity Management				$20,000
Research and Development	N/A	N/A	N/A	**$47,847**
Cybersecurity				$41,416
Infrastructure Protection				$2,431
Integrated Operations				$4,000
Federal Protective Service	N/A	N/A	N/A	**$1,527,110**
Federal Protective Service Operations				$359,196
Countermeasures				$1,167,914
Total Direct Authorization/Appropriation	N/A	N/A	N/A	**$1,821,151**
Fee Accounts	N/A	N/A	N/A	**$1,527,110**

National Protection and Programs Directorate
Proposed Legislative Language

Operation and Support

For necessary expenses of the National Protection and Programs Directorate for operations and support, as authorized by title II of the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.), ***including minor procurements, construction and improvements***, [$1,455,275,000] ***$1,470,340,000***, of which $8,912,000 shall remain available until September 30, [2019]**2020**: Provided, That not to exceed $3,825 shall be for official reception and representation expenses.

Language Provision	Explanation
*...**including minor procurements, construction and improvements***...	Reference to "minor procurements" added to ensure consistency with DHS policy that procurement of end items that are under $250,000 should be funded out of the Operations and Support account.
[1,455,275,000]***$1,470,340,000***	Dollar change only.
[2019]**2020**;	Updated period of availability.

Procurement, Construction, and Improvements

For necessary expenses of the National Protection and Programs Directorate, as authorized by title II of the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.), for procurement, construction, and improvements, [$335,033,000;] ***$302,964,000*** [, of which $294,933,000 shall remain available until September 30, 2019; and of which $40,100,000 shall] ***to*** remain available until September 30, 2020.

Language Provision	Explanation
[$335,033,000]***$302,964,000***	Dollar change only.
[, of which $294,933,000 shall remain available until September 30, 2019; and of which $40,100,000 shall] ***to***	Updated period of availability.

Research and Development

For necessary expenses of the National Protection and Programs Directorate, as authorized by the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.) for research and development, [$11,126,000] *$47,847,000*, to remain available until September 30, [2019]*2020*.

Language Provision	Explanation
[$11,126,000]*$47,847,000*	Dollar change only.
[2019]*2020*.	Updated period of availability.

Federal Protective Service

The revenues and collections of security fees credited to this account shall be available until expended for necessary expenses related to the protection of federally owned and leased buildings and for the operations of the Federal Protective Service.

Language Provision	Explanation
N/A	No Changes.

Statutory Authority

Section 1706 of the Homeland Security Act of 2002, codified at 40 USC 1315(a) vests in the Secretary of DHS the authority and responsibility to "protect the buildings, grounds, and property that are owned, occupied, or secured by the Federal Government;" (6 USC 203(3) & 6 USC 232(a)). The authority for FPS to recover the cost of law enforcement and security services can be found at 40 USC 586(c) (implemented at 41 CFR 102-85.135). Congress recognizes and confirms FPS' reimbursable authority in the annual appropriations.

Department of Homeland Security
National Protection and Programs Directorate
Operations and Support

Fiscal Year 2019
Congressional Justification

Table of Contents

Operations and Support
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Mission Support	385	348	$69,408	435	349	$87,517	428	338	$78,103	(7)	(11)	($9,414)
Cybersecurity	725	505	$669,414	743	579	$720,557	770	577	$713,055	27	(2)	($7,502)
Infrastructure Protection	667	523	$186,292	681	573	$187,955	704	575	$206,035	23	2	$18,080
Emergency Communications	126	97	$102,041	137	108	$113,921	137	113	$115,696	-	5	$1,775
Integrated Operations	316	238	$109,684	391	322	$125,896	391	336	$127,170	-	14	$1,274
Office of Biometric Identity Management	170	156	$235,429	170	154	$219,429	177	161	$230,281	7	7	$10,852
Total	**2,389**	**1,867**	**$1,372,268**	**2,557**	**2,085**	**$1,455,275**	**2,607**	**2,100**	**$1,470,340**	**50**	**15**	**$15,065**
Subtotal Discretionary - Appropriation	2,389	1,867	$1,372,268	2,557	2,085	$1,455,275	2,607	2,100	$1,470,340	50	15	$15,065

*FTE reported in this table differ from MAX A-11 due to adjusted Prior Year (PY) totals and Current Year (CY) estimates reported at a later date than the MAX A-11 PY and CY lock dates.

The National Protection and Programs Directorate (NPPD) Operations and Support (O&S) appropriation funds NPPD's core operations to enhance the security and resilience of infrastructure against terrorist attacks, cyber events, natural disasters, and other large-scale incidents. Secure and resilient infrastructure is essential for national security, economic vitality, and public health and safety. Critical infrastructure security and resilience efforts must address all hazards—from terrorism and other criminal activities to natural disasters and cyber threats.

The O&S appropriation supports the costs of necessary operations, mission support, and associated management and administration to execute NPPD programs. Activities are organized according to the following program/project/activity (PPA) structure:

- **Mission Support:** The Mission Support program provides enterprise leadership, management, and business administrative services that sustain day-to-day management operations. Key capabilities include conducting agency planning and performance management, managing finances, managing the agency workforce, providing physical and personnel security, acquiring goods and services, managing information technology, managing agency property and assets, providing legal affairs services, and providing general management and administration.

- **Cybersecurity:** The Cybersecurity program advances computer security preparedness and the response to cyberattacks and incidents. The program includes activities to secure the federal network, respond to incidents, disseminate actionable information, and collaborate with private sector partners to secure critical infrastructure. This program supports the implementation of government-wide deployment of hardware and software systems to prevent and detect incidents, respond to incidents that occur within federal and private entities, and collaborate with the

private sector to increase the security and resiliency of critical networks. The program also coordinates cybersecurity education for the federal workforce.

- **Infrastructure Protection:** The Infrastructure Protection program leads and coordinates national programs and policies on critical infrastructure security and resilience, and develops strong partnerships across government and the private sector. The program conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners, operators, and state, local, tribal, and territorial partners understand and address risks to critical infrastructure. Additionally, it provides information on emerging threats and hazards and offers tools and training to partners to help them manage risks to critical infrastructure.

- **Emergency Communications:** The Emergency Communications program is responsible for advancing the Nation's interoperable emergency communications capabilities to enable first responders and government officials to continue to communicate in the event of disasters.

- **Integrated Operations:** The Integrated Operations program ensures domain awareness through the sustainment of command and control capabilities, coordination, information sharing, and situational awareness in support of multiple mission programs. This program includes several organizations that carry out functions such as consequence analysis, decision support and modeling, 24x7 critical infrastructure watch operations, continuity of operations, stakeholder engagement, external affairs, privacy, policy development and implementation, and strategic planning.

- **Office of Biometric Identity Management:** The Office of Biometric Identity Management (OBIM) provides biometric identification services to help federal, state, and local government partners accurately identify people whom they encounter to determine if they pose a risk to the United States. This program supplies the technology for collecting and storing biometric data. The program shares information, provides analyses, updates watchlists, and ensures the integrity of the data.

Figure 1: NPPD PPAs Level I, II, and III Split ($K)

Operations and Support ($000)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	Defense %	Non Defense %
Cybersecurity (Level 1)					
Cyber Readiness and Response (Level 2)	**196,904**	**200,965**	**224,396**	**100%**	**0%**
NCCIC Operations	108,402	116,471	140,049	100%	0%
[CERT]	[86,638]	[93,921]	[117,556]		
NCCIC Planning and Exercises	88,502	84,494	84,347	100%	0%
[CERT]	[61,607]	[63,775]	[64,297]		
Cyber Infrastructure Resilience (Level 2)	**44,053**	**41,943**	**30,059**	**100%**	**0%**
Cybersecurity Advisors	12,970	14,693	6,860	100%	0%
Enhanced Cybersecurity Services	16,950	17,157	13,097	100%	0%
Cybersecurity Education and Awareness	14,133	10,093	10,102	100%	0%
Federal Cybersecurity (Level 2)	**428,457**	**477,649**	**458,600**	**100%**	**0%**
Federal Network Resilience	35,013	42,766	49,834	100%	0%
Continuous Diagnostics & Mitigation	7,565	93,780	112,089	100%	0%
National Cybersecurity Protection System	385,879	341,103	296,677	100%	0%
Subtotal, Cybersecurity	**669,414**	**720,557**	**713,055**		
Infrastructure Protection (Level 1)					
Infrastructure Capacity Building (Level 2)	**116,735**	**115,515**	**129,182**	**100%**	**0%**
Sector Risk Management	42,396	44,491	55,859	100%	0%
Protective Security Advisors	39,723	35,677	39,114	100%	0%
Bombing Prevention	15,070	14,739	14,752	100%	0%
Infrastructure Information & Sensitive Data Protection	19,546	20,608	19,457	100%	0%
Infrastructure Security Compliance (Level 2)	**69,557**	**72,440**	**76,853**	**100%**	**0%**
Subtotal, Infrastructure Protection	**186,292**	**187,955**	**206,035**		
Emergency Communications (Level 1)					
Emergency Communications Preparedness (Level 2)	**44,097**	**49,966**	**51,785**	**100%**	**0%**
Priority Telecommunications Services (Level 2)	**57,944**	**63,955**	**63,911**	**100%**	**0%**
GETS/WPS/SRAS/TSP	55,730	56,319	56,293	100%	0%
NGN-Priority Services	2,214	7,636	7,618	100%	0%
Subtotal, Emergency Communications	**102,041**	**113,921**	**115,696**		
Integrated Operations (Level 1)					
Cyber & Infrastructure Analysis (Level 2)	**41,880**	**43,322**	**44,683**	**100%**	**0%**
National Infrastructure Simulation Analysis Center	18,650	8,912	8,912	100%	0%
Infrastructure Analysis	23,230	34,410	35,771	100%	0%
Critical Infrastructure Situational Awareness (Level 2)	**16,176**	**21,222**	**23,429**	**91%**	**9%**
[Defense]	14,720	19,312	21,320		
[Non-Defense]	1,456	1,910	2,109		
Stakeholder Engagements & Requirements (Level 2)	**41,959**	**46,904**	**45,127**	**90%**	**10%**
[Defense]	37,763	42,213	40,614		
[Non-Defense]	4,196	4,690	4,513		
Strategy, Policy, & Plans (Level 2)	**9,669**	**14,448**	**13,931**	**66%**	**34%**
[Defense]	6,382	9,536	9,194		
[Non-Defense]	3,287	4,912	4,737		
Subtotal, Integrated Operations	**109,684**	**125,896**	**127,170**		
Office of Biometric Identity Management (Level 1)					
Identity & Screening Program Operations (Level 2)	**71,954**	**68,826**	**69,590**	**0%**	**100%**
IDENT/HART Operations & Maintenance (Level 2)	**163,475**	**150,603**	**160,691**	**0%**	**100%**
Subtotal, Office of Biometric Identity Management	**235,429**	**219,429**	**230,281**		
Mission Support (Level 1)				31%	69%
[Defense]	21,516	27,130	24,212		
[Non-Defense]	47,892	60,387	53,891		
Subtotal, Mission Support	**69,408**	**87,517**	**78,103**		
Total Operations and Support	**1,372,267**	**1,455,275**	**1,470,340**		
[Defense]	1,080,007	1,163,946	1,174,809		
[Non-Defense]	292,260	291,328	295,531		

All Defense Funding — Cybersecurity

All Defense Funding — Infrastructure Protection

All Defense Funding — Emergency Communications

Mix Defense and Non-Defense Funding — Integrated Operations

All Non-Defense Funding — Office of Biometric Identity Management

Mix Defense and Non-Defense Funding — Mission Support

Operations and Support
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$1,372,268**	**$1,455,275**	**$1,470,340**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$20,873	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$1,372,268**	**$1,476,148**	**$1,470,340**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$1,372,268**	**$1,476,148**	**$1,470,340**
Obligations (Actual/Projections/Estimates)	$1,336,844	$1,476,148	$1,470,340
Personnel: Positions and FTE			
Enacted/Request Positions	2,389	2,557	2,607
Enacted/Request FTE	1,867	2,085	2,100
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	2,275	2,557	2,607
FTE (Actual/Estimates/Projections)	1,792	2,085	2,100

Operations and Support
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**2,389**	**1,867**	**$1,372,268**
FY 2018 President's Budget	**2,557**	**2,085**	**$1,455,275**
FY 2019 Base Budget	**2,557**	**2,085**	**$1,455,275**
Transfer to MGMT/CFO from NPPD for Centralized Training	-	-	($26)
Transfer to MGMT/CHCO from NPPD due to NFC Payroll Services Costs Removal	-	-	($5)
Transfer to O&S from PC&I for Modeling Capability Transition Environment (MCTE)	-	-	$500
Transfer to PC&I from O&S for Infrastructure Info and Sensitive Data Protection	-	-	($2,320)
Transfer to PC&I from O&S for National Cybersecurity Protection System (NCPS)	-	-	($68,000)
Total Transfers	**-**	**-**	**($69,851)**
Annualization of 2018 Pay Raise	-	-	$1,654
Annualization of 2018 Personnel Changes	-	46	$8,219
Total, Pricing Increases	**-**	**46**	**$9,873**
Annualization of 2018 Program Changes	-	-	($1,664)
CFMS Planned Profile Decrease	-	-	($1,300)
FTE Rightsizing	-	(57)	($10,218)
Termination of Nonrecurring CDM Operations and Maintenance	-	-	($42,000)
Total, Pricing Decreases	**-**	**(57)**	**($55,182)**
Total Adjustments-to-Base	**-**	**(11)**	**($115,160)**
FY 2019 Current Services	**2,557**	**2,074**	**$1,340,115**
Build-out of Pensacola Facility Increase	-	-	$6,000
CDM Alignment to Cost Estimate & Dashboard/Phase 3 Increase	-	-	$60,370
CFATS Operations Increase	-	-	$5,321
Cyber Analytics Increase	14	7	$7,048
Federal Cybersecurity Governance & Training Support Increase	7	4	$6,344
IDENT-HART Increase	-	-	$10,088
NCCIC Pensacola Operations Lab Increase	-	-	$5,414
NCCIC Staffing Plan Increase	6	3	$12,505
NCPS Operational Support Activities Increase	-	-	$20,203
Soft Target Program Management Office Increase	23	12	$11,780
Total, Program Increases	**50**	**26**	**$145,073**

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
ECS Future Year CSP Reduction Decrease	-	-	($3,760)
IDR Program Reduction Decrease	-	-	($500)
IP Regionalization Decrease	-	-	($2,240)
OUS Office of General Counsel Decrease	-	-	($377)
SECIR Cybersecurity Advisors Decrease	-	-	($7,971)
Total, Program Decreases	**-**	**-**	**($14,848)**
FY 2019 Request	**2,607**	**2,100**	**$1,470,340**
FY 2018 TO FY 2019 Change	**50**	**15**	**$15,065**

Operations and Support
Justification of Pricing Changes

Pricing Changes	FY 2019 President's Budget		
(Dollars in Thousands)	**Positions**	**FTE**	**Amount**
Pricing Change 1 - Annualization of 2018 Pay Raise	-	-	**$1,654**
Mission Support	-	-	$261
Cybersecurity	-	-	$528
Cyber Readiness and Response	-	-	$237
NCCIC Operations	-	-	$131
NCCIC Planning and Exercises	-	-	$106
Cyber Infrastructure Resilience	-	-	$58
Cybersecurity Advisors	-	-	$19
Enhanced Cybersecurity Services	-	-	$5
Cybersecurity Education & Awareness	-	-	$34
Federal Cybersecurity	-	-	$233
Federal Network Resilience	-	-	$64
Continuous Diagnostics and Mitigation	-	-	$29
National Cybersecurity Protection System	-	-	$140
Infrastructure Protection	-	-	$419
Infrastucture Capacity Building	-	-	$237
Sector Risk Management	-	-	$88
Protective Security Advisors	-	-	$97
Bombing Prevention	-	-	$13
Infrastructure Information and Sensitive Data Protection	-	-	$39
Infrastructure Security Compliance	-	-	$182
Emergency Communications	-	-	$86
Emergency Communications Preparedness	-	-	$65
Priority Telecommunications Services	-	-	$21
GETS/WPS/SRAS/TSP	-	-	$12
Next Generation Networks Priority Services	-	-	$9
Integrated Operations	-	-	$256
Cyber and Infrastructure Analysis	-	-	$100
Infrastructure Analysis	-	-	$100

Pricing Changes	FY 2019 President's Budget		
(Dollars in Thousands)	Positions	FTE	Amount
Critical Infrastructure Situational Awareness	-	-	$35
Stakeholder Engagement and Requirements	-	-	$74
Strategy, Policy, and Plans	-	-	$47
Office of Biometric Identity Management	-	-	$104
Identity and Screening Program Operations	-	-	$104
Pricing Change 2 - Annualization of 2018 Personnel Changes	**-**	**46**	**$8,219**
Mission Support	-	9	$1,440
Cybersecurity	-	7	$1,389
Cyber Readiness and Response	-	2	$351
NCCIC Operations	-	1	$179
NCCIC Planning and Exercises	-	1	$172
Cyber Infrastructure Resilience	-	1	$181
Cybersecurity Advisors	-	1	$181
Federal Cybersecurity	-	4	$857
Federal Network Resilience	-	4	$857
Emergency Communications	-	5	$848
Emergency Communications Preparedness	-	5	$848
Integrated Operations	-	25	$4,542
Cyber and Infrastructure Analysis	-	17	$3,124
Infrastructure Analysis	-	17	$3,124
Critical Infrastructure Situational Awareness	-	6	$1,109
Stakeholder Engagement and Requirements	-	2	$309
Pricing Change 3 - Annualization of 2018 Program Changes	**-**	**-**	**($1,664)**
Cybersecurity	-	-	($1,558)
Cyber Readiness and Response	-	-	($735)
NCCIC Operations	-	-	($406)
NCCIC Planning and Exercises	-	-	($329)
Cyber Infrastructure Resilience	-	-	($103)
Cybersecurity Advisors	-	-	($62)
Enhanced Cybersecurity Services	-	-	($16)
Cybersecurity Education & Awareness	-	-	($25)
Federal Cybersecurity	-	-	($720)
Federal Network Resilience	-	-	($197)

Pricing Changes	FY 2019 President's Budget		
(Dollars in Thousands)	Positions	FTE	Amount
Continuous Diagnostics and Mitigation	-	-	($90)
National Cybersecurity Protection System	-	-	($433)
Infrastructure Protection	-	-	$1,355
Infrastucture Capacity Building	-	-	$1,130
Infrastructure Information and Sensitive Data Protection	-	-	$1,130
Infrastructure Security Compliance	-	-	$225
Emergency Communications	-	-	$841
Emergency Communications Preparedness	-	-	$906
Priority Telecommunications Services	-	-	($65)
GETS/WPS/SRAS/TSP	-	-	($38)
Next Generation Networks Priority Services	-	-	($27)
Integrated Operations	-	-	($1,974)
Cyber and Infrastructure Analysis	-	-	($2,363)
Infrastructure Analysis	-	-	($2,363)
Critical Infrastructure Situational Awareness	-	-	$1,611
Stakeholder Engagement and Requirements	-	-	($658)
Strategy, Policy, and Plans	-	-	($564)
Office of Biometric Identity Management	-	-	($328)
Identity and Screening Program Operations	-	-	($328)
Pricing Change 4 - CFMS Planned Profile Decrease	**-**	**-**	**($1,300)**
Mission Support	-	-	($1,300)
Pricing Change 5 - FTE Rightsizing	**-**	**(57)**	**($10,218)**
Mission Support	-	(13)	($2,291)
Cybersecurity	-	(23)	($4,014)
Cyber Readiness and Response	-	(8)	($1,389)
NCCIC Operations	-	(3)	($500)
NCCIC Planning and Exercises	-	(5)	($889)
Cyber Infrastructure Resilience	-	(2)	($289)
Enhanced Cybersecurity Services	-	(2)	($289)
Federal Cybersecurity	-	(13)	($2,336)
National Cybersecurity Protection System	-	(13)	($2,336)
Infrastructure Protection	-	(10)	($1,863)
Infrastucture Capacity Building	-	(3)	($548)

Pricing Changes	FY 2019 President's Budget		
(Dollars in Thousands)	**Positions**	**FTE**	**Amount**
Protective Security Advisors	-	(3)	($548)
Infrastructure Security Compliance	-	(7)	($1,315)
Integrated Operations	-	(11)	($2,050)
Critical Infrastructure Situational Awareness	-	(3)	($548)
Stakeholder Engagement and Requirements	-	(8)	($1,502)
Pricing Change 6 - Termination of Nonrecurring CDM Operations and Maintenance	**-**	**-**	**($42,000)**
Cybersecurity	-	-	($42,000)
Federal Cybersecurity	-	-	($42,000)
Continuous Diagnostics and Mitigation	-	-	($42,000)
Total Pricing Changes	**-**	**(11)**	**($45,309)**

Justification of Pricing Changes:

Pricing Change 1 - Annualization of 2018 Pay Raise (0 Positions, 0 FTE, $1.7M): This pricing change reflects an increase of $1.7M to annualize the 2018 pay increase of 1.9 percent.

Pricing Change 2 - Annualization of 2018 Personnel Changes (0 Positions, 46 FTE, $8.2M): This pricing change reflects an increase of $8.2M to sustain the hiring included in the FY 2018 President's Budget.

Pricing Change 3 - Annualization of 2018 Program Changes (0 Positions, 0 FTE, ($1.7)M): This pricing change reflects a decrease of $1.7M to annualize the non-personnel FY 2018 President's Budget enhancements and to terminate any one-time costs associated with those enhancements.

Pricing Change 4 – CFMS Planned Profile Decrease (0 Positions, 0 FTE, ($1.3)M): This pricing change reflects a decrease of $1.3M to the Consolidated Financial Management System (CFMS) in FY 2019 due to delays in the transition to a new financial system solution.

Pricing Change 5 - FTE Rightsizing (0 Positions, (57) FTE, ($10.2)M): The pricing change proposes a decrease of $10.2M to adjust salaries and benefits based on actual current hiring projections and historical execution, thereby ensuring that all FTE counts are fully funded and attainable.

Pricing Change 6 - Termination of Non-Recurring CDM Operations and Maintenance (0 Positions, 0 FTE, ($42.0)M): This pricing change proposes a decrease of $42.0M to terminate non-recurring operations and maintenance costs related to the Continuous Diagnostics and Mitigation (CDM) program.

Operations and Support
Justification of Program Changes

Program Changes	FY 2019 President's Budget		
(Dollars in Thousands)	Positions	FTE	Amount
Program Change 1 - Build-out of Pensacola Facility Increase	-	-	**$6,000**
Cybersecurity	-	-	$6,000
Federal Cybersecurity	-	-	$6,000
National Cybersecurity Protection System	-	-	$6,000
Program Change 2 - CDM Alignment to Cost Estimate & Dashboard/Phase 3 Increase	-	-	**$60,370**
Cybersecurity	-	-	$60,370
Federal Cybersecurity	-	-	$60,370
Continuous Diagnostics and Mitigation	-	-	$60,370
Program Change 3 - CFATS Operations Increase	-	-	**$5,321**
Infrastructure Protection	-	-	$5,321
Infrastructure Security Compliance	-	-	$5,321
Program Change 4 - Cyber Analytics Increase	**14**	**7**	**$7,048**
Cybersecurity	14	7	$7,048
Cyber Readiness and Response	14	7	$7,048
NCCIC Operations	14	7	$7,048
Program Change 5 - ECS Future Year CSP Reduction Decrease	-	-	**($3,760)**
Cybersecurity	-	-	($3,760)
Cyber Infrastructure Resilience	-	-	($3,760)
Enhanced Cybersecurity Services	-	-	($3,760)
Program Change 6 - Federal Cybersecurity Governance & Training Support Increase	**7**	**4**	**$6,344**
Cybersecurity	7	4	$6,344
Federal Cybersecurity	7	4	$6,344
Federal Network Resilience	7	4	$6,344
Program Change 7 - IDENT-HART Increase	-	-	**$10,088**
Office of Biometric Identity Management	-	-	$10,088
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	-	-	$10,088
Program Change 8 - IDR Program Reduction Decrease	-	-	**($500)**
Infrastructure Protection	-	-	($500)
Infrastructure Capacity Building	-	-	($500)

Program Changes	FY 2019 President's Budget		
(Dollars in Thousands)	**Positions**	**FTE**	**Amount**
Sector Risk Management	-	-	($500)
Program Change 9 - IP Regionalization Decrease	**-**	**-**	**($2,240)**
Mission Support	-	-	($2,240)
Program Change 10 - NCCIC Pensacola Operations Lab Increase	**-**	**-**	**$5,414**
Cybersecurity	-	-	$5,414
Cyber Readiness and Response	-	-	$5,414
NCCIC Operations	-	-	$5,414
Program Change 11 - NCCIC Staffing Plan Increase	**6**	**3**	**$12,505**
Cybersecurity	6	3	$12,505
Cyber Readiness and Response	6	3	$12,505
NCCIC Operations	-	-	$11,712
NCCIC Planning and Exercises	6	3	$793
Program Change 12 - NCPS Operational Support Activities Increase	**-**	**-**	**$20,203**
Cybersecurity	-	-	$20,203
Federal Cybersecurity	-	-	$20,203
National Cybersecurity Protection System	-	-	$20,203
Program Change 13 - OUS Office of General Counsel Decrease	**-**	**-**	**($377)**
Mission Support	-	-	($377)
Program Change 14 - SECIR Cybersecurity Advisors Decrease	**-**	**-**	**($7,971)**
Cybersecurity	-	-	($7,971)
Cyber Infrastructure Resilience	-	-	($7,971)
Cybersecurity Advisors	-	-	($7,971)
Program Change 15 - Soft Target Program Management Office Increase	**23**	**12**	**$11,780**
Infrastructure Protection	23	12	$11,780
Infrastucture Capacity Building	23	12	$11,780
Sector Risk Management	23	12	$11,780
Total Program Changes	**50**	**26**	**$130,225**

Program Change 1: Build Out of Pensacola Facility Increase

Cybersecurity, Federal Cybersecurity, National Cybersecurity Protection System, $6.0M, 0 Positions/0 FTE.

Prior to Program Changes: $270.5M, 177 Positions/ 139 FTE for National Cybersecurity Protection System PPA
After Program Changes[1]: $296.7M, 177 Positions/ 139 FTE for National Cybersecurity Protection System PPA

Description

NPPD requests an increase of $6.0 million to support the build-out of the Pensacola facility, which will assist with the agency's personnel growth and afford the agency the flexibility to place mission personnel at Corry Station who would otherwise need to be stationed in the National Capital Region (NCR). The 14,000 square feet facility located in Pensacola, Florida will provide increased capacity for more cost-effective remote engagements. It will additionally provide cost-effective storage and warehousing for equipment needed outside of the NCR. This resource request reflects the costs associated with outfitting and equipping the interior space and providing for shared lab capabilities. The facility will be interconnected to existing National Cybersecurity and Communications Integration Center (NCCIC) lab capabilities to: (1) ease the transition of functions from the NCR, and (2) provide for continuity of operations for the NCCIC. Furthermore, the increased presence at Corry Station will allow NPPD to capitalize on cybersecurity training opportunities with the Department of the Navy and provide a cost savings with the Pensacola facility being located on the government-owned Naval Base, Corry Station, versus in the NCR. Without adequate space, additional staff cannot be assigned to Pensacola and mission functionality will be impacted.

Justification

With the dynamic nature of the cybersecurity mission, mission needs are steadily increasing. As such, NPPD estimates that the cybersecurity portion of its organization requires additional rentable space ready for occupancy by FY 2020. NPPD cybersecurity and communications activities are currently located in two locations within the NCR. The square footage of these locations totals to 196,627 rentable square feet. Out of this existing space, approximately 62,000 rentable square feet is classified space required to support critical mission duties related to cybersecurity operations activities that cannot be performed in unclassified space. The need for classified space leaves insufficient unclassified space remaining to accommodate 1,200+ employees (both federal government employees and contractors). The inadequate space is restricting the ability of cybersecurity and communications staff to perform their mission duties. NPPD has implemented efforts such as mandatory telework, seat sharing, and "hoteling" practices; however, despite these efforts, the current situation is untenable. More space is required to adequately perform NPPD's cybersecurity missions.

Performance

The proposed increase in funding will enable NPPD to expand its cybersecurity workspace, thereby positively impacting its cybersecurity and communications operational missions. In the absence of this increase, there will be operational impacts across NPPD programs due to inadequate facilities.

---

[1] There are two program changes requested for the National Cybersecurity Protection System PPA: (1) NCPS Operational Support Activities Increase for $20.2M, and (2) Build-out of Pensacola Facility Increase for $6.0M.

Program Change 2 – CDM Alignment to Cost Estimate and Dashboard/Phase 3 Increase

Cybersecurity, Federal Cybersecurity, Continuous Diagnostics and Mitigation, $60.4M, 0 Positions/ 0 FTE.

Prior to Program Changes: $51.7M, 55 Positions/ 40 FTE for Continuous Diagnostics and Mitigation PPA
After Program Changes: $112.1M, 55 Positions/ 40 FTE for Continuous Diagnostics and Mitigation PPA

Description

NPPD requests an increase of $60.4M to support the Continuous Diagnostics and Mitigation (CDM) program. With the additional funding, CDM will be funded in line with its Life Cycle Cost Estimate in FY 2019, which is necessary to fulfill operations and support requirements. Furthermore, this funding will allow the CDM program to fully fund the operations and maintenance of the program's Dashboard and Phase 3. The objective of the Dashboard is to provide timely, targeted, and prioritized information to security decision-makers (i.e., cross-agency and federal-level managers and systems administrators) to help them identify and support the repair of prioritized security problems. The goal is to mitigate risks before they can be exploited and cause harm to the agency information technology (IT) assets, business assets, and/or mission areas. Phase 3 provides the federal government with ongoing assessment, authorization, incident response, and extended security for high value assets and other necessary security lifecycle management capabilities.

Justification

The requested funding supports the CDM program's operations and support affordability for FY 2019, and is critical to meet the scheduled objectives to fully operate and maintain the program. The Dashboard will continue its version releases as Phase 3 tools and services are implemented, and Phase 1 and Phase 2 tools are integrated, allowing agencies to address advanced persistent threats and other events that occur within their networks. Phase 3 will strengthen agencies' network protection with standardized incident reporting, management, and mitigation. Phase 3 tools will provide extended security for agency high value assets, significantly increase automation for federal agencies, and eliminate the need to manually count devices.

Performance

The requested funding will allow the CDM program to be appropriately funded in-line with its LCCE, which will allow the program to adhere to schedules and protect against delays to deployment. Operations and maintenance of core capabilities, including on-going assessment, on-going authorization, and incident response reporting, will executed on schedule. With the funding requested, agencies will be able to fully realize the benefits of CDM, including the Dashboard and Phase 3.

Additionally, the increase will fund CDM tools to provide high-priority capabilities and positive impacts to 75 departments and agencies. These capabilities include:
- Near 100 percent visibility of all IT devices (not just computers), which eliminates network "dark zones." The deployed sensors pick up all devices on the network, which allows for continuous monitoring.
- Automated vulnerability patching, which significantly reduces threat-exposure windows.
- Targeted malware searches using real-time endpoint queries.
- Consolidated endpoint management, which allows program operators to make operational changes.

- Integrated data platform, which enables operational cyber analytics and intelligence. CDM tools allow for maintenance of near real-time sensor data, which can be used for faster threat detection and more accurate decision-making. CDM tools also provide complete enterprise visibility during operational events.

Program Change 3 - CFATS Operations Increase

Infrastructure Protection, Infrastructure Security Compliance, Chemical Facility Anti-Terrorism Standards, $5.3M, 0 Positions/0 FTE

Prior to Program Change: $71.5M, 307 Positions/ 248 FTE for Infrastructure Security Compliance PPA
After Program Change: $76.9M, 307 Positions/ 248 FTE for Infrastructure Security Compliance PPA

Description

NPPD requests an increase of $5.3M for the mission operations of the Chemical Facility Anti-Terrorist Standards (CFATS) program. This requested funding will support requirements based on the workload associated with maintaining the operational activities of the program. It will address multiple program priorities, including providing new funding to support the approximately 1,000 newly-regulated facilities identified through re-tiering, and increasing the overall Infrastructure Security Compliance Division (ISCD) support.

Justification

NPPD's ISCD is charged with strengthening security at the Nation's high-risk chemical facilities through the CFATS program. This regulatory program is a performance-based, non-prescriptive regulatory framework which ensures that facilities put security measures into place to reduce the risk of a terrorist attack involving certain high-risk chemicals.

The program expects to increase the number of chemical facilities that it regulates as a result of the implementation of the revised tiering engine in FY 2017 and 2018. This revised tiering engine is expected to identify many chemical facilities, which were previously un-tiered, as facilities that require regulation. ISCD expects that approximately 1,000 facilities that were not previously subject to CFATS security requirements will be newly-regulated due to the alterations to the tiering engine. The administrative workload associated with these newly-regulated entities will be significant due to the intake of Security Vulnerability Assessments (SVA), Site Security Plans (SSP), and Help Desk inquiries submitted by these new chemical facilities.

Once new SVAs and SSPs are received, the program will also require Subject Matter Expert (SME) support to review these submissions. The initial review of these additional assessments and plans will take place through FY 2018; and ISCD will be working through the SVA and SSP authorization and approval processes in FY 2019. This process is tied directly to the goal of preventing and mitigating terrorist attacks through upgrading chemical facilities' security postures. A delay in the processing of SVAs and SSPs will result in the continued vulnerability exposure of several high-risk chemical facilities in the United States.

Performance

This program change is required to increase funding in a number of mission areas impacted by the risk engine rollout. These include (but are not

limited to):
- Help-desk support to chemical facilities to assist with the compliance process; and
- Review, analysis, authorization, and approval of SVAs and SSPs from the newly-regulated chemical facilities.

The funding request accounts for the expected increase in the size of the CFATS-regulated chemical facility population as a result of recent changes to the CFATS tiering engine. Without additional funding for the CFATS program, NPPD estimates that there may be greater risk to the nation of a successful terrorist attack on a domestic chemical facility or the misuse of materials acquired from such a facility to strike our nation's populace.

Program Change 4 - Cyber Analytics Increase

Cybersecurity, Cyber Readiness and Response, NCCIC Operations, $7.0M, 14 Positions/ 7 FTE

Prior to Program Changes: $115.9M, 215 Positions/ 153 FTE for NCCIC Operations PPA
After Program Changes[2]: $140.0M, 229 Positions/ 160 FTE for NCCIC Operations PPA

Description

NPPD requests an increase of $7.0M for the funding of National Cybersecurity and Communications Integration Center (NCCIC) operations. This request reflects requirements based on the acceleration of new threats and vulnerabilities to both cyber and telecommunications systems; these threats and vulnerabilities cannot be discovered by one, single analytic method or process. The NCCIC requires consolidated analysis across numerous domains (operational, threat, technical, and network analytics) to support and inform strategic risk management priorities by providing actionable information across the NPPD stakeholder base and lines of business.

The NCCIC's analytical capabilities allow the NCCIC to ingest and decompose diverse sets of data (Big Data, CDM, NCPS, etc.); enhance the expertise of its analysts to understand the information; leverage intelligence community and other analytical resources to provide stakeholders with the most actionable intelligence and best practices; better identify concerns and trends stemming from evolving technologies; and recognize and develop new ways to counter adversary tactics, techniques, and procedures.

Justification

The funding requested will support a comprehensive analytics function for the NCCIC, which includes:
- Operational Analytics ($1.0M; 1 FTE):
  - Facilitate the use of intelligence to drive incident response functions and better understand the overall cyber and communications risk landscape through analyzing both NCCIC and intelligence community data;
  - Fuse data and information from different sources in order to create an "all-sourced" product that can be shared with all NCCIC

---

[2] There are three program changes requested for the NCCIC Operations PPA: (1) NCCIC Staffing Plan Increase for $11.7M, (2) Cyber Analytics Increase for $7.0M, and (3) NCCIC Pensacola Operations Lab Increase for $5.4M.

customers; and
- o   Focus primarily on activities and deliverables specific to supporting incident management, victim notification, information for briefings and presentations, and general cyber threat awareness specific to NCCIC and its customer needs and requirements.
- Technical Analytics ($3.0M; 3 FTE):
  - o   Include all aspects of malware analysis, digital analysis, reverse engineering, and longer-term analysis such as exploring systemic vulnerabilities, potential future threats, tactics, techniques, procedures, and more intractable long-term problems across enterprise; and
  - o   Include analytic lab management and tool development.
- Network Analytics ($3.0M; 3 FTE):
  - o   Analyze network traffic and incident data to identify and enable the detection and mitigation of malicious network traffic; and
  - o   Use analysis to identify and develop new methods to detect adversary threats on networks. This will result in understanding how actors are impacting stakeholders, informing new methods of detection (scripts, signatures, etc.), and enhancing response capabilities.

Performance

A fully-funded cyber analytic capability across all analytic domains will enable the NPPD NCCIC to:
- Facilitate and improve the NCCIC's understanding of the overall threat picture for both cyber and communications domains. This will result in coordinated and comprehensive enhanced risk management against threats;
- Increase the timeliness, volume, scope and depth of malware and digital media analytics. This will result in more indicators of malicious activity; and
- Improve the NCCIC's understanding of how actors are impacting stakeholders, and develop new methods to detect adversary threats on stakeholders' networks.

Program Change 5 - ECS Future Year CSP Reduction Decrease

Cybersecurity, Cyber Infrastructure Resilience, Enhanced Cybersecurity Services, ($3.8)M, 0 Positions/ 0 FTE

Prior to Program Change: $16.9M, 8 Positions/ 5 FTE for Enhanced Cybersecurity Services PPA
After Program Change: $13.1M, 8 Positions/ 5 FTE for Enhanced Cybersecurity Services PPA

Description

NPPD requests a decrease of $3.8M for Enhanced Cybersecurity Services (ECS) future-year Commercial Service Providers (CSPs). As part of Executive Order (EO) 13636, the ECS program is an intrusion prevention capability that helps United States-based companies protect their computer systems against unauthorized access, exploitation, and data exfiltration. ECS works by sharing sensitive and classified cyber threat information with accredited CSPs. These CSPs, in turn, use that information to block certain types of malicious traffic from entering customer networks. ECS is meant to augment, but not replace, existing cybersecurity capabilities.

Justification

Since the program's inception, the ECS cost model and budget projections were based on the significant interest from industry to become either a Commercial Service Provider (CSP) or Operational Implementer (OI) in the program. As the ECS program was executed, the program began analyzing the decrease in community interest and reviewing the actual costs compared to the budgeted costs. Based on the new cost projections for ECS, NPPD requests this budget reduction to reflect these programmatic developments.

Performance

There is no adverse impact to performance at this funding level since the reduction is based on a decreased workload.

Program Change 6 - Federal Cybersecurity Governance & Training Support Increase

Cybersecurity, Federal Cybersecurity, Federal Network Resilience, $6.3M, 7 Positions/ 4 FTE

Prior to Program Change: $43.5M, 87 Positions/ 67 FTE for Federal Network Resilience PPA
After Program Change: $49.8M, 94 Positions/ 71 FTE for Federal Network Resilience PPA

Description

NPPD requests an increase of $6.3M for the funding of Federal Network Resilience (FNR) resources to build out its governance and training capability. The funding will be used to provide federal departments and agencies with the necessary cybersecurity governance guidance and training materials to ensure successful implementation and usage of critical cybersecurity programs (e.g., Continuous Diagnostics and Mitigation (CDM) and EINSTEIN) and new/emerging requirements (e.g., cloud migration and IT shared services).

Justification

The current governance and training capability is insufficient to meet the demand of federal departments and agencies for governance processes, management and controls, and training programs on critical cybersecurity programs and new technical requirements. The requested funding will allow NPPD to provide governance, guidance, and training support during the deployment, implementation, and usage of critical cybersecurity programs at the level of depth and quality expected by federal departments, agencies, and the Administration. Specifically, NPPD will be able to expand the current cybersecurity governance and training support beyond CDM and EINSTEIN to other key current and future cybersecurity requirements.

Performance

The additional resources for cybersecurity governance and training efforts will allow NPPD to create and maintain a platform for information sharing that supports the maturation of the federal department and agency cybersecurity governance framework; assist federal departments and agencies to better understand cybersecurity programs; develop skills to facilitate more responsive and appropriate risk management; and contribute to an expansion of baseline cybersecurity knowledge. The specific program activities that will be supported by the funding request includes:

- Adding two new live, hands-on training courses. These will be offered quarterly, focusing on emerging cybersecurity topics for federal

agencies.
- Adding four new in-person workshops. These will be offered bi-annually, focusing on relevant topics for federal agency Chief Information Officers and Chief Information Security Officers (e.g., Managing Cybersecurity Risk at the Executive Level, Governing High Value Assets, etc.).
- Producing, at minimum, six topical technical assistance product kits that will work in concert with the live trainings and workshops (e.g., pocket guides, job aids, checklists, etc.).

Program Change 7 - IDENT-HART Increase:

Office of Biometric Identity Management, IDENT/Homeland Advanced Recognition Technology Operations and Maintenance, $10.1M, 0 Positions/ 0 FTE

Prior to Program Change: $150.6M, 0 Positions/ 0 FTE for IDENT/HART Operations and Maintenance PPA
After Program Change: $160.7M, 0 Positions/ 0 FTE for IDENT/HART Operations and Maintenance PPA

Description

NPPD requests an increase of $10.1M in FY 2019 to support additional Homeland Advanced Recognition Technology (HART) capabilities. This funding will support fielding modalities beyond fingerprint, such as facial and iris, in order to help the stakeholders of NPPD's Office of Biometric Identity Management (OBIM) complete their missions.

Justification

Per Public Law 115-31, OBIM will "accelerate the development of multi-modal biometric capability (Homeland Advanced Recognition Technology Increment 2) to ensure that full multi-modal capability is available for stakeholders by the end of fiscal year 2018." The additional funding requested for FY 2019 will support this effort.

Performance

With the additional funding requested, NPPD will have the resources available to deploy and utilize HART's multi-modal capabilities. These capabilities will support HART stakeholders.

Program Change 8 - IDR Program Reduction Decrease

Infrastructure Protection, Infrastructure Capacity Building, Sector Risk Management, ($0.5)M, 0 Positions/ 0 FTE

Prior to Program Changes: $44.6M, 141 Positions/ 121 FTE for Sector Risk Management PPA

After Program Changes[3]: $55.9M, 164 Positions/ 133 FTE for Sector Risk Management PPA

Description

NPPD requests a decrease of $0.5M to the Infrastructure Development and Recovery (IDR) Program. NPPD established the IDR program in 2015 following lessons learned through the Superstorm Sandy recovery effort. The IDR program works with partners in the public and private sectors to build resilience measures into infrastructure investment strategies, plans, policies, designs, and procedures. The program also works to mitigate security threats and enable rapid recovery from incidents. It applies a holistic approach to critical infrastructure security and resilience, considering cross-sector interdependencies, current and future threats and hazards, and options for mitigating those threats and hazards through infrastructure investment and management decisions throughout the lifecycle of an infrastructure asset.

Justification

The IDR program is NPPD's principal means to influence the design of infrastructure security and resilience. In FY 2019, the NPPD IDR program will reduce non-mission-critical expenditures in areas such as travel and equipment, and will implement contracting efficiencies to achieve this reduction.

Performance

The reduction to the IDR program will cut non-mission-critical expenditures, such as travel. Mission-critical requirements, such as providing planning tools, decision guides, technical assistance, training, and field support will not be diminished.

Program Change 9 - IP Regionalization Decrease

Mission Support, ($2.2)M, 0 Positions/ 0 FTE

Prior to Program Changes: $80.7M, 428 Positions/ 338 FTE for Mission Support PPA
After Program Changes[4]: $78.1M, 428 Positions/ 338 FTE for Mission Support PPA

Description

NPPD requests a decrease of $2.2M to the Infrastructure Protection (IP) regionalization facilities efforts. The NPPD regionalization effort is intended to enable the implementation of national goals and requirements in a manner tailored to each of the 10 NPPD regions' unique risks, needs, and capabilities. Furthermore, the regional enhancement buildout will allow NPPD to be more strategic with resources, better assess and plan for risks

---

[3] There are two program changes requested for the Sector Risk Management PPA: (1) Soft Target Program Management Office Increase for $11.8M, and (2) IDR Program Reduction Decrease for ($0.5)M.

[4] There are two program changes requested for the Mission Support PPA: (1) IP Regionalization Decrease for ($2.2)M, and (2) OUS Office of General Counsel Decrease for ($0.4)M.

across sectors, and strengthen partnerships within local critical infrastructure communities. Since critical infrastructure is located throughout the United States, locating staff and resources in the field across the Nation (and not just the NCR) is an important step in enabling NPPD to build routine interactions with communities and infrastructure owners and operators. These interactions and accompanying resources are essential to empower communities to make effective infrastructure investment decisions, not only in hardening existing infrastructure but also in considering security and resilience in new infrastructure design.

Justification

The decrease of $2.2M to NPPD regionalization will reduce funds associated with NPPD facilities, both within the NCR and in the field. This reduction of funds is requested due to the planned completion of the facilities buildout by FY 2019. The regional enhancement buildout has allowed NPPD to be more strategic with resources, better assess and plan for risks across sectors, and strengthen partnerships within local critical infrastructure.

Performance

In FY 2019, regionalization facilities costs are expected to decrease due to expected construction being completed. In addition, NPPD will no longer have the start-up costs associated with construction and buildout of regional facilities in FY 2019. NPPD is committed to identifying cost efficiencies and potential offsets, while simultaneously working to achieve Full Operational Capability (FOC) for its regionalization effort.

Program Change 10 – NCCIC Pensacola Operations Lab Increase

Cybersecurity, Cyber Readiness and Response, NCCIC Operations, $5.4M, 0 Positions/ 0 FTE

Prior to Program Changes: $115.9M, 215 Positions/ 153 FTE for NCCIC Operations PPA
After Program Changes[5]: $140.0M, 229 Positions/ 160 FTE for NCCIC Operations PPA

Description

NPPD requests an increase of $5.4M to continue its investment in a lab and logistical support facility at Corry Station in Pensacola, Florida. This investment will reduce facility and labor costs over the coming years. The lab and logistical support facility will provide additional engagement capacity, technical research and development, equipment maintenance, server rooms, and warehousing of equipment. The additional funding will support state of the art operations, development, and maintenance of the facility for the Hunt and Incident Response Team (HIRT), National Cybersecurity Assessment Technical Services (NCATS), and Cyber Threat Detection Analysis (CDTA) teams at Pensacola.

Justification

Placing a lab in the Corry Station facility will afford the National Cybersecurity and Communications Integration Center (NCCIC) operational components additional flexibility to put mission personnel at Corry Station who would otherwise need to be stationed in the NCR. Without adequate

---

[5] There are three program changes requested for the NCCIC Operations PPA: (1) NCCIC Staffing Plan Increase for $11.7M, (2) Cyber Analytics Increase for $7.0M, and (3) NCCIC Pensacola Operations Lab Increase for $5.4M.

lab facilities and equipment, no additional staff can be assigned to Pensacola. NPPD's NCCIC is planning to move the bulk of its warehousing and storage facilities for incident management capabilities, as well as the entirety of the tool integration and analytical development effort, to Pensacola in order to capitalize on the lower cost of facilities in the area.

Performance

This request will provide facilities for 45 additional NCCIC technical personnel to operate from the Corry Station location. The facility will include four dedicated engagement rooms to support remote operations, an open and collaborative lab space, and a classified analysis lab. In addition, 800 square feet of server room space and 2,500 square feet of warehousing and logistics space will allow the transfer of assets from space-limited facilities in the NCR to Pensacola. Furthermore, NCCIC's increased presence at Corry Station will allow NPPD to capitalize on cybersecurity training opportunities with the Department of the Navy.

Program Change 11 – NCCIC Staffing Plan Increase:

Cybersecurity, Cyber Readiness and Response, NCCIC Operations, $11.7M, 0 Positions/0 FTE, and
NCCIC Planning and Exercises, $0.8M, 6 Positions/ 3 FTE

Prior to Program Changes: $115.9M, 215 Positions/ 153 FTE for NCCIC Operations PPA
After Program Changes[6]: $140.0M, 229 Positions/ 160 FTE for NCCIC Operations PPA

Prior to Program Change: $83.6M, 161 Positions/ 127 FTE for NCCIC Planning and Exercises PPA
After Program Change: $84.3M, 167 Positions/ 130 FTE for NCCIC Planning and Exercises PPA

Description

NPPD requests an increase of $12.5M, which will provide personnel and contractor support to perform assessments, perform incident response activities, develop analytical products, and support continuous (24x7x365) operational staffing in the NCR and Pensacola. The funding will also allow NPPD to maintain readiness in order to execute national security and emergency preparedness.

Justification

NCCIC operates at the intersection of government, private sector, and international network defense and communications communities – applying unique analytic perspectives, ensuring shared situational awareness, and orchestrating synchronized response, mitigation, and recovery efforts. The additional resources will allow the NCCIC to meet the increasing demands for assessments and incident response teams across new sectors such as aviation, petroleum distribution, and industrial sabotage. It will also support an increasing operational tempo at the 24x7 Watch.

---

[6] There are three program changes requested for the NCCIC Operations PPA: (1) NCCIC Staffing Plan Increase for $11.7M, (2) Cyber Analytics Increase for $7.0M, and (3) NCCIC Pensacola Operations Lab Increase for $5.4M.

Performance

Additional resources requested will provide contractor subject matter expert (SME) support and technical analyst support, provide for training and exercise events, upgrade Watch equipment, and enhance interagency coordination and information sharing. The additional resources will also support an increased number of in-depth architectural reviews, which are being requested at an increasing pace by critical infrastructure stakeholders.

Specific program activities that will be supported by the funding request include:
- Increasing the number of cyber hygiene scanning customers;
- Increasing the number of risk and vulnerability assessments of high value assets;
- Increasing the number of phishing campaign assessments;
- Making use of new data from the CDM system as departments and agencies integrate more CDM tools;
- Decreasing the time required to detect and mitigate critical vulnerabilities; and
- Increasing capacity for the National Vulnerability Database to identify and manage vulnerabilities.

Program Change 12 – NCPS Operational Support Activities Increase:

Cybersecurity, Federal Cybersecurity, National Cybersecurity Protection System, $20.2M, 0 Positions/ 0 FTE

Prior to Program Changes: $270.5M, 177 Positions/ 139 FTE for National Cybersecurity Protection System PPA
After Program Changes[7]: $296.7M, 177 Positions/ 139 FTE for National Cybersecurity Protection System PPA

Description

NPPD requests an increase of $20.2M, which will fully fund the requirements outlined in NPPD's National Cybersecurity Protection System's (NCPS) re-baselined Lifecycle Cost Estimate (LCCE).

Justification

The additional funding requested supports the affordability of NCPS in FY 2019. The NCPS analytics capability, historically known as Block 2.1, provides NPPD cybersecurity analysts with the ability to compile and analyze information to inform the public about current and potential cybersecurity threats and vulnerabilities. The analytics capability includes a Security Information and Event Management (SIEM) solution for NCPS. The SIEM solution simplifies cyber analysis by: aggregating similar events, thereby reducing duplication; correlating related events that might otherwise go unnoticed; and providing visualization capabilities, thus making it easier to see relationships. The analytics capability also includes: Packet Capture (PCAP) tools, a malware analysis laboratory, flow visualization tools, incident management and response tools, and high input/output databases that allow for the analysis of large data sets.

---

[7] There are two program changes requested for the National Cybersecurity Protection System PPA: (1) NCPS Operational Support Activities Increase for $20.2M, and (2) Build-out of Pensacola Facility Increase for $6.0M.

Funding will support the planning and development of Enhanced Analytic and Analysis Infrastructure. The enhancements to the analytic techniques and analysis infrastructure would allow NPPD cybersecurity analysts to keep up with adversaries' capabilities in a dynamic cyber environment. Specifically, enhancements to the analytic capability would provide NPPD with the ability to prioritize cyber risks, automatically triage incidents, enrich indicators automatically, and automate response actions to protect departments, agencies, and other stakeholders. These specific enhancements will improve speed, efficiency, and quality of cyber analysis – thereby enabling NPPD cybersecurity analysts to automatically process, for enrichment and sharing, large amounts of threat data while applying human expertise to the most important analytic results. This will also maximize the return on investment for other previous NCPS investments and enable NCPS data, including enriched indicators and analytic results, to be integrated with CDM.

Specific program activities that will be supported by the funding request include:
- Automated incident and indicator triage (including enrichment, workflow automation, and automated response recommendations).
- Advanced streaming analytic development (including associated tools and processes).
- Enhancements to existing non-signature detection techniques using new and existing infrastructure.
- Improvements to existing batch data analysis techniques (with new detection techniques and improving analysis infrastructure).

Performance

With the additional funding requested, the NCPS program will be appropriately funded to adhere to program schedules and protect against program delays. The funding will provide NPPD with the ability to prioritize cyber risks, automatically triage incidents, enrich indicators automatically, and automate response actions to protect departments, agencies, and other stakeholders.

Program Change 13 – OUS Office of General Counsel Decrease:

Mission Support, ($0.4)M, 0 Positions/ 0 FTE

Prior to Program Changes: $80.7M, 428 Positions/ 338 FTE for Mission Support PPA
After Program Changes[8]: $78.1M, 428 Positions/ 338 FTE for Mission Support PPA

Description

NPPD requests a decrease of $0.4M for the Office of General Counsel (OGC). The staffing plan for the NPPD OGC, which is under the NPPD Office of the Under Secretary (OUS), presently calls for three attorneys to be primarily focused on cyber procurements. NPPD plans to eliminate one procurement attorney from its staffing plan, which will result in a savings of $0.2M. In addition, NPPD does not expect that the OGC Chief of Staff position will be filled in FY 2019, which will result in a savings of $0.2M.

---

[8] There are two program changes requested for the Mission Support PPA: (1) IP Regionalization Decrease for ($2.2)M, and (2) OUS Office of General Counsel Decrease for ($0.4)M.

Justification

A third procurement attorney is less necessary than was anticipated at the time of the development of the initial staffing plan. Moving forward, NPPD OGC will rely on two procurement attorneys to supply legal advice on procurement issues and programs. Furthermore, the Deputy Associate General Counsel has satisfied the functions and responsibilities of the Chief of Staff position. With the requested reduction, the Deputy Associate General Counsel will continue to be dual-hatted until future funding is available to fill the Chief of Staff billet.

Performance

NPPD OGC will maintain its current performance level. The two procurement attorneys currently on-board will provide sufficient legal services, and so there will not be a decrease in legal advice on procurement issues and programs. The Deputy Associate General Counsel will continue the status quo of performing in the capacity of Chief of Staff, which requires addressing managerial, resource, fiscal, budget, and personnel matters.

Program Change 14 - SECIR Cybersecurity Advisors Decrease:

Cybersecurity, Cyber Infrastructure Resilience, Cybersecurity Advisors, ($8.0)M, 0 Positions/ 0 FTE

Prior to Program Changes: $14.8M, 30 Positions/ 23 FTE for Cybersecurity Advisors PPA
After Program Changes: $6.9M, 30 Positions/ 23 FTE for Cybersecurity Advisors PPA

Description

NPPD requests a decrease of $8.0M to the Stakeholder Engagement and Cyber Infrastructure Resilience (SECIR) Cybersecurity Advisor (CSA) Program. The CSA program provides direct coordination, outreach, regional support, and assistance in the protection of cyber components essential to the Nation's critical infrastructure. In service of this mission, CSAs lead and support key activity areas, which, in turn, support priority goals identified by NPPD leadership and presidential priorities such as the Executive Order on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure and Executive Order 13636.

Justification

The proposed funding decrease will reduce and/or eliminate various functions supporting CSA operations, to include cybersecurity assessments, field support activities, and the CSA Portal on the IP Gateway. Use of federal and contractor personnel will ensure minimal impact to critical infrastructure stakeholders and state, local, tribal, and territorial stakeholders.

Performance

Impacts to the critical infrastructure and state, local, tribal, and territorial stakeholders will be mitigated by utilizing existing federal and contractor personnel to maintain FY 2017 levels in FY 2019. Contractors and existing federal staff will support approximately 179 planned assessments, such as the Cyber Resilience Review (CRR) and the External Dependencies Management (EDM) review, and update the CSA Portal for bug fixes and minor changes.

Program Change 15 – Soft Target Program Management Office Increase:

Infrastructure Protection, Infrastructure Capacity Building, Sector Risk Management, $11.8M, 23 Positions/ 12 FTE

Prior to Program Changes: $44.6M, 141 Positions/ 121 FTE for Sector Risk Management PPA
After Program Changes[9]: $55.9M, 164 Positions/ 133 FTE for Sector Risk Management PPA

Description

NPPD requests an increase of $11.8M to establish a comprehensive Soft Target Security Program within the NPPD Office of Infrastructure Protection (IP). The new program will consist of a multitude of capabilities that innovatively enhance the security of soft targets.

Justification

As a result of a thorough analysis of the current threat environment and existing capabilities, NPPD assessed that a more comprehensive, innovative, and coordinated approach is necessary to address risks posed by terrorists and other extremist actors who, more frequently, are leveraging simple tactics to inflict harm and cause damage in less-secure public areas. As an initial measure, NPPD issued the Soft Target Security Framework in July 2017. The Framework outlines the agency's approach to improve soft target security across the country. It also orients existing efforts into an overall strategic initiative to reduce soft target risk. Ultimately, the Framework serves as a guide for the agency to invest in solutions to enhance soft target security in partnership with the public and private sectors. The end goals identified in the Framework include:

- Demonstrably reduce the risk of a successful attack on soft targets;
- Ensure that the Department has the capability to support visible efforts to enhance soft target security to fulfill the mission of safeguarding the American people;
- Develop a center of gravity for Department-wide resources available to support the critical infrastructure community in securing soft targets; and
- Promote a dynamic process to identify and address soft target security gaps based on threats and incidents.

NPPD subsequently established a Soft Target Security Task Force to define priority actions in support of the implementation of the Framework and to identify opportunities for enhancing integration and coordination efforts. As part of its efforts, the Task Force identified a number of short-, medium-, and long-term actions through research and interviews conducted with subject-matter experts representing multiple disciplines, and strategic off-sites with public and private sector partners. The resulting actions represent a comprehensive suite of priority requirements aimed at enhancing the capabilities of the organization to more effectively support the reduction of risks to soft targets.

Based on the requirements identified through the process described above, the requested $11.8M will allow NPPD to effectively implement the proposed Soft Target Security Program. Of the funding increase requested, $2.5M is required to achieve appropriate staffing levels and $9.3M is

---

[9] There are two program changes requested for the Sector Risk Management PPA: (1) Soft Target Program Management Office Increase for $11.8M, and (2) IDR Program Reduction Decrease for ($0.5)M.

required to execute programmatic activities.

Staffing at the full operating capability will consist of 23 FTEs, distributed between headquarters (13 FTEs) and field offices (10 FTEs). Headquarters staff will serve as subject matter experts (SMEs) who will identify, develop, implement, and measure innovative programs that will enhance soft target security. The field office staff, who will provide expertise at the regional level with special focus on bombing prevention capabilities, will leverage the programs and resources developed at Headquarters to improve the security posture at large, medium, and small-size organizations across the country.

Performance

The funding request will expand NPPD's capabilities to reduce the risks to soft targets imposed by the evolving threat environment. In addition, the new capabilities funded with this request will increase the Nation's ability to secure soft targets through innovative programs and initiatives, thereby reducing the loss of life and economic losses resulting from attacks.

Successful implementation of the Soft Target Program, which will develop innovative capabilities to enhance the security of soft targets, will result in the following outcomes:
- Coordinated and strategic approach to addressing risk;
- Improved technology integration to support security;
- Increased opportunities to leverage grants, incentives, and other market drivers to promote security;
- Improved standards and/or guidance for soft target security;
- Targeted threat information sharing and situational awareness;
- Improved integration of research and development outcomes and simulation capabilities into best practices; and
- Development of training and enhanced security protocols.

Operations and Support
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Mission Support	385	348	$56,043	$160.88	435	349	$54,982	$157.37	428	338	$53,396	$157.8	(7)	(11)	($1,586)	$0.43
Cybersecurity	725	505	$93,452	$185.05	743	579	$106,519	$183.97	770	577	$105,852	$183.45	27	(2)	($667)	($0.52)
Infrastructure Protection	667	523	$81,459	$155.75	681	573	$88,268	$154.05	704	575	$90,169	$156.82	23	2	$1,901	$2.77
Emergency Communications	126	97	$17,321	$178.57	137	108	$18,134	$167.91	137	113	$19,067	$168.73	-	5	$933	$0.82
Integrated Operations	316	238	$37,637	$158.14	391	322	$53,855	$167.25	391	336	$56,071	$166.88	-	14	$2,216	($0.37)
Office of Biometric Identity Management	170	156	$25,307	$162.22	170	154	$21,843	$141.84	177	161	$22,940	$142.48	7	7	$1,097	$0.64
Total	**2,389**	**1,867**	**$311,219**	**$166.66**	**2,557**	**2,085**	**$343,601**	**$164.77**	**2,607**	**2,100**	**$347,495**	**$165.45**	**50**	**15**	**$3,894**	**$0.68**
Discretionary - Appropriation	2,389	1,867	$311,219	$166.66	2,557	2,085	$343,601	$164.77	2,607	2,100	$347,495	$165.45	50	15	$3,894	$0.68

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$227,657	$244,105	$251,978	$7,873
11.3 Other than Full-Time Permanent	$5,643	$7,038	$6,134	($904)
11.5 Other Personnel Compensation	$4,450	$5,122	$5,339	$217
11.8 Special Personal Services Payments	$58	$59	$59	-
12.1 Civilian Personnel Benefits	$73,411	$87,277	$83,985	($3,292)
Total - Personnel Compensation and Benefits	**$311,219**	**$343,601**	**$347,495**	**$3,894**
Positions and FTE				
Positions - Civilian	2,389	2,557	2,607	50
FTE - Civilian	1,867	2,085	2,100	15

Operations and Support
Permanent Positions by Grade Appropriation

Grades and Salary Range *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
Total, SES	28	31	30	-1
Total, EX	2	3	3	-
GS-15	398	434	435	1
GS-14	884	941	970	29
GS-13	686	721	734	13
GS-12	334	366	374	8
GS-11	36	39	39	-
GS-10	-	-	2	2
GS-9	14	15	14	-1
GS-8	2	2	2	-
GS-7	5	5	4	-1
Total Permanent Positions	**2,389**	**2,557**	**2,607**	**50**
Position Locations				
Headquarters	1,902	2,051	2,091	40
U.S. Field	487	506	516	10
Averages				
Average Personnel Costs, ES Positions	170,215	172,938	175,705	2,767
Average Personnel Costs, GS Positions	98,453	100,028	101,629	1,601
Average Grade, GS Positions	13	13	13	-

Operations and Support
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Mission Support	$13,365	$32,535	$24,707	($7,828)
Cybersecurity	$575,962	$614,038	$607,203	($6,835)
Infrastructure Protection	$104,833	$99,687	$115,866	$16,179
Emergency Communications	$84,720	$95,787	$96,629	$842
Integrated Operations	$72,047	$72,041	$71,099	($942)
Office of Biometric Identity Management	$210,122	$197,586	$207,341	$9,755
Total	**$1,061,049**	**$1,111,674**	**$1,122,845**	**$11,171**
Discretionary - Appropriation	$1,061,049	$1,111,674	$1,122,845	$11,171

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$10,087	$13,707	$13,887	$180
22.0 Transportation of Things	$3,586	$300	$3,495	$3,195
23.1 Rental Payments to GSA	$6,956	$11,638	$13,146	$1,508
23.2 Rental Payments to Others	$603	$2,054	$2,105	$51
23.3 Communications, Utilities, and Misc. Charges	$9,861	$15,112	$12,009	($3,103)
24.0 Printing and Reproduction	$181	$97	$181	$84
25.1 Advisory and Assistance Services	$506,229	$455,710	$462,097	$6,387
25.2 Other Services from Non-Federal Sources	$26,410	$136,361	$35,519	($100,842)
25.3 Other Goods and Services from Federal Sources	$232,465	$227,242	$311,670	$84,428
25.4 Operation and Maintenance of Facilities	$6,265	$4,492	$7,219	$2,727
25.5 Research and Development Contracts	-	$4,540	$443	($4,097)
25.6 Medical Care	$1	$4,084	$1	($4,083)
25.7 Operation and Maintenance of Equipment	$207,157	$198,691	$220,499	$21,808
25.8 Subsistence & Support of Persons	$728	$625	$237	($388)

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
26.0 Supplies and Materials	$555	$782	$6,396	$5,614
31.0 Equipment	$35,561	$13,568	$14,982	$1,414
32.0 Land and Structures	$320	$5,495	$4,728	($767)
41.0 Grants, Subsidies, and Contributions	$14,050	$16,921	$14,050	($2,871)
42.0 Insurance Claims and Indemnities	$34	$255	$181	($74)
Total - Non Pay Object Classes	**$1,061,049**	**$1,111,674**	**$1,122,845**	**$11,171**

Mission Support – PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Mission Support	385	348	$69,408	435	349	$87,517	428	338	$78,103	(7)	(11)	($9,414)
Total	**385**	**348**	**$69,408**	**435**	**349**	**$87,517**	**428**	**338**	**$78,103**	**(7)**	**(11)**	**($9,414)**
Subtotal Discretionary - Appropriation	385	348	$69,408	435	349	$87,517	428	338	$78,103	(7)	(11)	($9,414)

The Mission Support PPA provides enterprise leadership, management, and business administrative services that sustain the day-to-day management and back-office operations. Key capabilities include: conducting agency planning and performance management, managing finances, managing the agency workforce, providing physical and personnel security, acquiring goods and services, managing information technology, managing agency property and assets, managing agency communications, managing legal affairs, and providing general management and administration.

Figure 2: Mission Support by NPPD Subcomponent Split ($K)

Appropriation	PPA Level I	NPPD Subcomponent	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Operations & Support	Mission Support	Office of the Under Secretary (OUS)	$ 38,615	$ 45,111	$ 42,701
		Office of Infrastructure Protection (IP)	$ 11,903	$ 22,042	$ 15,943
		Office of Cybersecurity & Communications (CS&C)	$ 16,085	$ 18,260	$ 18,338
		Office of Biometric Identity Management (OBIM)	$ 2,805	$ 2,104	$ 1,121
		Total Mission Support ($000)	**$ 69,408**	**$ 87,517**	**$ 78,103**

Mission Support PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$69,408**	**$87,517**	**$78,103**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$69,408**	**$87,517**	**$78,103**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$69,408**	**$87,517**	**$78,103**
Obligations (Actual/Projections/Estimates)	$69,408	$87,517	$78,103
Personnel: Positions and FTE			
Enacted/Request Positions	385	435	428
Enacted/Request FTE	348	349	338
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	418	435	428
FTE (Actual/Estimates/Projections)	356	349	338

Mission Support – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**385**	**348**	**$69,408**
FY 2018 President's Budget	**435**	**349**	**$87,517**
FY 2019 Base Budget	**435**	**349**	**$87,517**
Transfer FTP/FTE to OBIM Identify and Screening Program	(7)	(7)	($993)
Transfer Non-Facility Regionalization	-	-	($3,888)
Transfer to MGMT/CFO from NPPD for Centralized Training	-	-	($26)
Total Transfers	**(7)**	**(7)**	**($4,907)**
Annualization of 2018 Pay Raise	-	-	$261
Annualization of 2018 Personnel Changes	-	9	$1,440
Total, Pricing Increases	**-**	**9**	**$1,701**
CFMS Planned Profile Decrease	-	-	($1,300)
FTE Rightsizing	-	(13)	($2,291)
Total, Pricing Decreases	**-**	**(13)**	**($3,591)**
Total Adjustments-to-Base	**(7)**	**(11)**	**($6,797)**
FY 2019 Current Services	**428**	**338**	**$80,720**
IP Regionalization Decrease	-	-	($2,240)
OUS Office of General Counsel Decrease	-	-	($377)
Total, Program Decreases	**-**	**-**	**($2,617)**
FY 2019 Request	**428**	**338**	**$78,103**
FY 2018 TO FY 2019 Change	**(7)**	**(11)**	**($9,414)**

Mission Support – PPA
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Mission Support	385	348	$56,043	$160.88	435	349	$54,982	$157.37	428	338	$53,396	$157.8	(7)	(11)	($1,586)	$0.43
Total	**385**	**348**	**$56,043**	**$160.88**	**435**	**349**	**$54,982**	**$157.37**	**428**	**338**	**$53,396**	**$157.8**	**(7)**	**(11)**	**($1,586)**	**$0.43**
Discretionary - Appropriation	385	348	$56,043	$160.88	435	349	$54,982	$157.37	428	338	$53,396	$157.8	(7)	(11)	($1,586)	$0.43

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$40,202	$39,008	$37,422	($1,586)
11.3 Other than Full-Time Permanent	$2,182	$2,200	$2,200	-
11.5 Other Personnel Compensation	$497	$500	$500	-
11.8 Special Personal Services Payments	$58	$59	$59	-
12.1 Civilian Personnel Benefits	$13,104	$13,215	$13,215	-
Total - Personnel Compensation and Benefits	**$56,043**	**$54,982**	**$53,396**	**($1,586)**
Positions and FTE				
Positions - Civilian	385	435	428	(7)
FTE - Civilian	348	349	338	(11)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilians Total	348	$56,043	$160.88	349	$54,982	$157.37	338	$53,396	$157.80	(11)	($1,586)	$0.43
Total – Pay Cost Drivers	**348**	**$56,043**	**$160.88**	**349**	**$54,982**	**$157.37**	**338**	**$53,396**	**$157.80**	**(11)**	**($1,586)**	**$0.43**

NARRATIVE EXPLANATION OF CHANGES

- $0.3M is for the annualization of the 1.9 percent pay raise in 2018.
- $1.4M and 9 FTE increase to annualize personnel changes included in the FY 2018 Presidents Budget Request.
- $2.3M and 13 FTE decrease for rightsizing of personnel based on actual current hiring projections and historical execution.

FTE Change FY 2018-2019: (11)
PCB Change FY 2018-2019: ($1,586)
Average Cost Change FY 2018-2019: $0.43

Mission Support – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Mission Support	$13,365	$32,535	$24,707	($7,828)
Total	**$13,365**	**$32,535**	**$24,707**	**($7,828)**
Discretionary - Appropriation	$13,365	$32,535	$24,707	($7,828)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$539	$756	$960	$204
22.0 Transportation of Things	$72	$19	$24	$5
23.1 Rental Payments to GSA	$201	$4,456	$3,657	($799)
23.2 Rental Payments to Others	-	$231	$297	$66
23.3 Communications, Utilities, and Misc. Charges	$105	-	$205	$205
24.0 Printing and Reproduction	-	$8	$10	$2
25.1 Advisory and Assistance Services	$9,019	$7,795	$2,091	($5,704)
25.2 Other Services from Non-Federal Sources	$254	$3,793	$5,013	$1,220
25.3 Other Goods and Services from Federal Sources	$1,501	$4,467	$3,671	($796)
25.4 Operation and Maintenance of Facilities	$462	$462	$587	$125
25.7 Operation and Maintenance of Equipment	$1,130	$10,163	$7,704	($2,459)
26.0 Supplies and Materials	$30	$276	$350	$74
31.0 Equipment	$52	$109	$138	$29
Total - Non Pay Object Classes	**$13,365**	**$32,535**	**$24,707**	**($7,828)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Operations and Maintenance of Facilities and Equipment	$1,592	$10,625	$4,685	($5,940)
Mission Support Services	$10,774	$16,055	$12,381	($3,674)
Rental Payments to GSA and Others	$201	$4,687	$5,954	$1,267
Other Costs	$798	$1,168	$1,687	$519
Total Non Pay Cost Drivers	**$13,365**	**$32,535**	**$24,707**	**($7,828)**

NON PAY NARRATIVE

Operations and Maintenance of Facilities and Equipment: FY 2019 funding assumes the continuation of several FY 2018 requirements.

Mission Support Services: FY 2019 funding assumes the continuation of several FY 2018 requirements.

Rental Payments to GSA and others: Includes funding for rental of spaces and other incidental services utilized by NPPD, including: General Services Administration (GSA) rentals, offsite storage spaces, and occupied seats and production shared spaces at Mount Weather.

Other Costs: Includes funding for equipment, NPPD leadership and employee travel, and office supplies needed to complete professional duties and responsibilities.

Cybersecurity - PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cyber Readiness and Response	369	263	$196,904	376	286	$200,965	396	290	$224,396	20	4	$23,431
Cyber Infrastructure Resilience	45	27	$44,053	48	38	$41,943	48	37	$30,059	-	(1)	($11,884)
Federal Cybersecurity	311	215	$428,457	319	255	$477,649	326	250	$458,600	7	(5)	($19,049)
Total	**725**	**505**	**$669,414**	**743**	**579**	**$720,557**	**770**	**577**	**$713,055**	**27**	**(2)**	**($7,502)**
Subtotal Discretionary - Appropriation	725	505	$669,414	743	579	$720,557	770	577	$713,055	27	(2)	($7,502)

The Cybersecurity program advances computer security preparedness and the response to cyberattacks and incidents. The program includes activities to secure the federal network, respond to incidents, disseminate actionable information, and collaborate with private sector partners to secure critical infrastructure. This program supports the implementation of government-wide deployment of hardware and software systems to prevent and detect incidents, respond to incidents at federal and private entities, and collaborate with the private sector to increase the security and resiliency of critical networks. The program also coordinates cybersecurity education for the federal workforce.

Figure 3 below depicts all cyber activities supported by NPPD, broken out by appropriation and PPA. Please note that the cybersecurity activities supported in the Research and Development (R&D) and Procurement, Construction, and Improvements (PC&I) appropriations are included in addition to O&S. Also, cybersecurity efforts supported in other O&S PPAs (i.e., Integrated Operations PPA) are also shown.

Figure 3: NPPD Cyber Activities Supported Across Appropriations and PPAs ($K)

Appropriation	PPA Level I	PPA Level II	PPA Level III	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Operations & Support	Cybersecurity	Cyber Readiness & Response	NCCIC Operations	$ 108,402	$ 116,471	$ 140,049
			NCCIC Planning & Exercises	$ 88,502	$ 84,494	$ 84,347
		Cyber Infrastructure Resilience	Cybersecurity Advisors	$ 12,970	$ 14,693	$ 6,850
			Enhanced Cybersecurity Services	$ 16,950	$ 17,157	$ 13,097
			Cyber Education & Awareness	$ 14,133	$ 10,093	$ 10,102
		Federal Cybersecurity	Federal Network Resilience	$ 35,013	$ 42,766	$ 49,834
			Continuous Diagnostics & Mitigation	$ 7,565	$ 93,780	$ 112,089
			National Cybersecurity Protection System	$ 385,879	$ 341,103	$ 296,677
	Integrated Operations	Cyber & Infrastructure Analysis	Infrastructure Analysis	$ 4,724	$ 4,715	$ 4,715
Procurement, Construction, & Improvements	Cybersecurity	Federal Cybersecurity	Continuous Diagnostics & Mitigation	$ 217,409	$ 185,180	$ 125,548
			National Cybersecurity Protection System	$ 81,771	$ 56,129	$ 110,078
Research & Development	Cybersecurity	Cybersecurity	Cybersecurity R&D	$ 2,030	$ 4,695	$ 41,416
			Total Cyber Activity ($000)	**$ 975,348**	**$ 971,276**	**$ 994,802**

Cybersecurity – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$669,414**	**$720,557**	**$713,055**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$18,772	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$669,414**	**$739,329**	**$713,055**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$669,414**	**$739,329**	**$713,055**
Obligations (Actual/Projections/Estimates)	$650,382	$739,329	$713,055
Personnel: Positions and FTE			
Enacted/Request Positions	725	743	770
Enacted/Request FTE	505	579	577
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	603	743	770
FTE (Actual/Estimates/Projections)	408	579	577

Cybersecurity – PPA
Summary of Budget Changes

Budget Formulation Activity (Dollars in Thousands)	Positions	FTE	Amount
FY 2017 Enacted	**725**	**505**	**$669,414**
FY 2018 President's Budget	**743**	**579**	**$720,557**
FY 2019 Base Budget	**743**	**579**	**$720,557**
Transfer to PC&I from O&S for National Cybersecurity Protection System (NCPS)	-	-	($68,000)
Total Transfers	**-**	**-**	**($68,000)**
Annualization of 2018 Pay Raise	-	-	$528
Annualization of 2018 Personnel Changes	-	7	$1,389
Total, Pricing Increases	**-**	**7**	**$1,917**
Annualization of 2018 Program Changes	-	-	($1,558)
FTE Rightsizing	-	(23)	($4,014)
Termination of Nonrecurring CDM Operations and Maintenance	-	-	($42,000)
Total, Pricing Decreases	**-**	**(23)**	**($47,572)**
Total Adjustments-to-Base	**-**	**(16)**	**($113,655)**
FY 2019 Current Services	**743**	**563**	**$606,902**
Build-out of Pensacola Facility Increase	-	-	$6,000
CDM Alignment to Cost Estimate & Dashboard/Phase 3 Increase	-	-	$60,370
Cyber Analytics Increase	14	7	$7,048
Federal Cybersecurity Governance & Training Support Increase	7	4	$6,344
NCCIC Pensacola Operations Lab Increase	-	-	$5,414
NCCIC Staffing Plan Increase	6	3	$12,505
NCPS Operational Support Activities Increase	-	-	$20,203
Total, Program Increases	**27**	**14**	**$117,884**
ECS Future Year CSP Reduction Decrease	-	-	($3,760)
SECIR Cybersecurity Advisors Decrease	-	-	($7,971)
Total, Program Decreases	**-**	**-**	**($11,731)**
FY 2019 Request	**770**	**577**	**$713,055**
FY 2018 TO FY 2019 Change	**27**	**(2)**	**($7,502)**

Cybersecurity – PPA
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cyber Readiness and Response	369	263	$46,433	$176.55	376	286	$50,040	$174.97	396	290	$50,455	$173.98	20	4	$415	($0.99)
Cyber Infrastructure Resilience	45	27	$4,737	$175.44	48	38	$7,383	$194.29	48	37	$7,039	$190.24	-	(1)	($344)	($4.05)
Federal Cybersecurity	311	215	$42,282	$196.66	319	255	$49,096	$192.53	326	250	$48,358	$193.43	7	(5)	($738)	$0.9
Total	**725**	**505**	**$93,452**	**$185.05**	**743**	**579**	**$106,519**	**$183.97**	**770**	**577**	**$105,852**	**$183.45**	**27**	**(2)**	**($667)**	**($0.52)**
Discretionary - Appropriation	725	505	$93,452	$185.05	743	579	$106,519	$183.97	770	577	$105,852	$183.45	27	(2)	($667)	($0.52)

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$63,463	$70,871	$74,000	$3,129
11.3 Other than Full-Time Permanent	$820	$1,715	$856	($859)
11.5 Other Personnel Compensation	$1,207	$1,368	$1,303	($65)
12.1 Civilian Personnel Benefits	$27,962	$32,565	$29,693	($2,872)
Total - Personnel Compensation and Benefits	**$93,452**	**$106,519**	**$105,852**	**($667)**
Positions and FTE				
Positions - Civilian	725	743	770	27
FTE - Civilian	505	579	577	(2)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilians Total	505	$93,452	$185.05	579	$106,519	$183.97	577	$105,852	$183.45	(2)	($667)	($0.52)
Total – Pay Cost Drivers	**505**	**$93,452**	**$185.05**	**579**	**$106,519**	**$183.97**	**577**	**$105,852**	**$183.45**	**(2)**	**($667)**	**($0.52)**

NARRATIVE EXPLANATION OF CHANGES

- $0.5M is for the annualization of the 1.9 percent pay raise in 2018.
- $1.4M and 7 FTE increase to annualize personnel changes included in the FY 2018 Presidents Budget Request.
- $4.0M and 23 FTE decrease for rightsizing of personnel based on actual current hiring projections and historical execution.
- $0.8M and 3 FTE increase for the NCCIC Staffing Plan.

FTE Change FY 2018-2019: (2)
PCB Change FY 2018-2019: ($667)
Average Cost Change FY 2018-2019: ($0.52)

Cybersecurity PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cyber Readiness and Response	$150,471	$150,925	$173,941	$23,016
Cyber Infrastructure Resilience	$39,316	$34,560	$23,020	($11,540)
Federal Cybersecurity	$386,175	$428,553	$410,242	($18,311)
Total	**$575,962**	**$614,038**	**$607,203**	**($6,835)**
Discretionary - Appropriation	$575,962	$614,038	$607,203	($6,835)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$1,662	$1,616	$1,516	($100)
22.0 Transportation of Things	$110	$83	$74	($9)
23.1 Rental Payments to GSA	$3,963	$4,576	$5,699	$1,123
23.2 Rental Payments to Others	$273	$349	$572	$223
23.3 Communications, Utilities, and Misc. Charges	$404	$3,514	$394	($3,120)
24.0 Printing and Reproduction	$24	-	-	-
25.1 Advisory and Assistance Services	$389,967	$337,501	$333,844	($3,657)
25.2 Other Services from Non-Federal Sources	$740	$101,820	$5,614	($96,206)
25.3 Other Goods and Services from Federal Sources	$99,457	$106,325	$183,046	$76,721
25.4 Operation and Maintenance of Facilities	$3,356	$2,367	$3,794	$1,427
25.5 Research and Development Contracts	-	$512	$443	($69)
25.7 Operation and Maintenance of Equipment	$28,222	$21,398	$35,611	$14,213
25.8 Subsistence & Support of Persons	$728	$625	$237	($388)
26.0 Supplies and Materials	$142	$59	$5,536	$5,477
31.0 Equipment	$32,567	$12,892	$11,915	($977)
32.0 Land and Structures	$297	$5,495	$4,705	($790)
41.0 Grants, Subsidies, and Contributions	$14,050	$14,651	$14,050	($601)
42.0 Insurance Claims and Indemnities	-	$255	$153	($102)
Total - Non Pay Object Classes	**$575,962**	**$614,038**	**$607,203**	**($6,835)**

Cyber Readiness and Response – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
NCCIC Operations	213	143	$108,402	215	155	$116,471	229	160	$140,049	14	5	$23,578
NCCIC Planning and Exercises	156	120	$88,502	161	131	$84,494	167	130	$84,347	6	(1)	($147)
Total	**369**	**263**	**$196,904**	**376**	**286**	**$200,965**	**396**	**290**	**$224,396**	**20**	**4**	**$23,431**
Subtotal Discretionary - Appropriation	369	263	$196,904	376	286	$200,965	396	290	$224,396	20	4	$23,431

The Cyber Readiness and Response PPA funds efforts to ensure the security and resilience of the Nation's critical infrastructure from physical and cyber threats. This PPA funds the National Cybersecurity and Communications Integration Center (NCCIC), which is the federal government's civilian hub for 24x7 cyber situational awareness, incident response, coordination, information sharing, and analysis. The NCCIC serves as a management center that is a national nexus of cyber and communications integration for the federal government; state, local, tribal, and territorial governments; the Intelligence Community; law enforcement; the private sector; and international entities. The NCCIC operates at the intersection of government, private sector, and international network defense and communications communities, applying unique analytic perspectives, ensuring shared situational awareness, and orchestrating synchronized response, mitigation, and recovery efforts while protecting the Constitutional and privacy rights of Americans in both the cybersecurity and communications domains.

The justification for the Classified Program that is part of this PPA will be made available under a separate cover.

Cyber Readiness and Response – PPA Level II
Summary of Budget Changes

Budget Formulation Activity (Dollars in Thousands)	Positions	FTE	Amount
FY 2017 Enacted	**369**	**263**	**$196,904**
FY 2018 President's Budget	**376**	**286**	**$200,965**
FY 2019 Base Budget	**376**	**286**	**$200,965**
Annualization of 2018 Pay Raise	-	-	$237
Annualization of 2018 Personnel Changes	-	2	$351
Total, Pricing Increases	**-**	**2**	**$588**
Annualization of 2018 Program Changes	-	-	($735)
FTE Rightsizing	-	(8)	($1,389)
Total, Pricing Decreases	**-**	**(8)**	**($2,124)**
Total Adjustments-to-Base	**-**	**(6)**	**($1,536)**
FY 2019 Current Services	**376**	**280**	**$199,429**
Cyber Analytics Increase	14	7	$7,048
NCCIC Pensacola Operations Lab Increase	-	-	$5,414
NCCIC Staffing Plan Increase	6	3	$12,505
Total, Program Increases	**20**	**10**	**$24,967**
FY 2019 Request	**396**	**290**	**$224,396**
FY 2018 TO FY 2019 Change	**20**	**4**	**$23,431**

Cyber Readiness and Response – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
NCCIC Operations	213	143	$25,821	$180.57	215	155	$27,642	$178.34	229	160	$27,875	$174.22	14	5	$233	($4.12)
NCCIC Planning and Exercises	156	120	$20,612	$171.77	161	131	$22,398	$170.98	167	130	$22,580	$173.69	6	(1)	$182	$2.71
Total	**369**	**263**	**$46,433**	**$176.55**	**376**	**286**	**$50,040**	**$174.97**	**396**	**290**	**$50,455**	**$173.98**	**20**	**4**	**$415**	**($0.99)**
Discretionary - Appropriation	369	263	$46,433	$176.55	376	286	$50,040	$174.97	396	290	$50,455	$173.98	20	4	$415	($0.99)

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$31,522	$32,090	$34,908	$2,818
11.3 Other than Full-Time Permanent	$402	$1,218	$417	($801)
11.5 Other Personnel Compensation	$812	$919	$846	($73)
12.1 Civilian Personnel Benefits	$13,697	$15,813	$14,284	($1,529)
Total - Personnel Compensation and Benefits	**$46,433**	**$50,040**	**$50,455**	**$415**
Positions and FTE				
Positions - Civilian	369	376	396	20
FTE - Civilian	263	286	290	4

Cyber Readiness and Response – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
NCCIC Operations	$82,581	$88,829	$112,174	$23,345
NCCIC Planning and Exercises	$67,890	$62,096	$61,767	($329)
Total	**$150,471**	**$150,925**	**$173,941**	**$23,016**
Discretionary - Appropriation	$150,471	$150,925	$173,941	$23,016

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$1,199	$1,352	$1,199	($153)
22.0 Transportation of Things	$19	$41	$19	($22)
23.1 Rental Payments to GSA	$536	$119	$536	$417
23.2 Rental Payments to Others	$19	$11	$19	$8
23.3 Communications, Utilities, and Misc. Charges	$146	$11	$146	$135
25.1 Advisory and Assistance Services	$73,046	$80,149	$65,395	($14,754)
25.2 Other Services from Non-Federal Sources	$322	$262	$322	$60
25.3 Other Goods and Services from Federal Sources	$47,686	$52,411	$73,393	$20,982
25.4 Operation and Maintenance of Facilities	$1,600	$379	$1,600	$1,221
25.7 Operation and Maintenance of Equipment	$15,192	$2,984	$15,192	$12,208
26.0 Supplies and Materials	$61	-	$5,475	$5,475
31.0 Equipment	$1,145	$718	$1,145	$427
41.0 Grants, Subsidies, and Contributions	$9,500	$12,411	$9,500	($2,911)
42.0 Insurance Claims and Indemnities	-	$77	-	($77)
Total - Non Pay Object Classes	**$150,471**	**$150,925**	**$173,941**	**$23,016**

NCCIC Operations – PPA Level III

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
NCCIC Operations	213	143	$108,402	215	155	$116,471	229	160	$140,049	14	5	$23,578
Total	**213**	**143**	**$108,402**	**215**	**155**	**$116,471**	**229**	**160**	**$140,049**	**14**	**5**	**$23,578**
Subtotal Discretionary - Appropriation	213	143	$108,402	215	155	$116,471	229	160	$140,049	14	5	$23,578

The National Cybersecurity and Communications Integration Center (NCCIC) serves as the U.S. Government's cross-sector hub for cybersecurity incident response, coordination, information, and analysis. The NCCIC Operations PPA includes incident response, threat identification detection and analysis, the Multi-State Information Sharing and Analysis Center (MS-ISAC) grant program, and Watch activities. NCCIC Operations leads cross-sector efforts to improve the Nation's cybersecurity posture, coordinate cyber information sharing, and manage cyber risks to the Nation while protecting constitutional liberties. Primary functions include: analyzing and reducing cyber threats and vulnerabilities, disseminating cyber threat warning information to public and private sector partners, coordinating with government and industry partners to achieve shared cyber situational awareness of the Nation's cyber critical infrastructure, providing response and recovery support for national assets, and advising senior leadership and stakeholders on national-level cybersecurity policy and guidance. Stakeholders include: federal civilian agencies; the Intelligence Community; state, local, tribal, and territorial governments; private sector partners; critical infrastructure owners and operators; international partners; and the public.

Figure 4: MS-ISAC Grant Funding ($K)

MS-ISAC Grant	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
MS-ISAC Grant Funding ($000)	$ 9,500	$ 9,516	$ 9,516

NCCIC Operations – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**213**	**143**	**$108,402**
FY 2018 President's Budget	**215**	**155**	**$116,471**
FY 2019 Base Budget	**215**	**155**	**$116,471**
Annualization of 2018 Pay Raise	-	-	$131
Annualization of 2018 Personnel Changes	-	1	$179
Total, Pricing Increases	**-**	**1**	**$310**
Annualization of 2018 Program Changes	-	-	($406)
FTE Rightsizing	-	(3)	($500)
Total, Pricing Decreases	**-**	**(3)**	**($906)**
Total Adjustments-to-Base	**-**	**(2)**	**($596)**
FY 2019 Current Services	**215**	**153**	**$115,875**
Cyber Analytics Increase	14	7	$7,048
NCCIC Pensacola Operations Lab Increase	-	-	$5,414
NCCIC Staffing Plan Increase	-	-	$11,712
Total, Program Increases	**14**	**7**	**$24,174**
FY 2019 Request	**229**	**160**	**$140,049**
FY 2018 TO FY 2019 Change	**14**	**5**	**$23,578**

NCCIC Operations – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization _(Dollars in Thousands)_	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
NCCIC Operations	213	143	$25,821	$180.57	215	155	$27,642	$178.34	229	160	$27,875	$174.22	14	5	$233	($4.12)
Total	**213**	**143**	**$25,821**	**$180.57**	**215**	**155**	**$27,642**	**$178.34**	**229**	**160**	**$27,875**	**$174.22**	**14**	**5**	**$233**	**($4.12)**
Discretionary - Appropriation	213	143	$25,821	$180.57	215	155	$27,642	$178.34	229	160	$27,875	$174.22	14	5	$233	($4.12)

Pay by Object Class

Pay Object Classes _(Dollars in Thousands)_	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$17,596	$16,895	$19,238	$2,343
11.3 Other than Full-Time Permanent	$101	$642	$106	($536)
11.5 Other Personnel Compensation	$549	$583	$574	($9)
12.1 Civilian Personnel Benefits	$7,575	$9,522	$7,957	($1,565)
Total - Personnel Compensation and Benefits	**$25,821**	**$27,642**	**$27,875**	**$233**
Positions and FTE				
Positions - Civilian	213	215	229	14
FTE - Civilian	143	155	160	5

Pay Cost Drivers

Leading Cost-Drivers _Dollars in Thousands_	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilians Total	143	$25,821	$180.57	155	$27,642	$178.34	160	$27,875	$174.22	5	$233	($4.12)
Total Pay Cost Drivers	**143**	**$25,821**	**$180.57**	**155**	**$27,642**	**$178.34**	**160**	**$27,875**	**$174.22**	**5**	**$233**	**($4.12)**

NCCIC Operations – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
NCCIC Operations	$82,581	$88,829	$112,174	$23,345
Total	**$82,581**	**$88,829**	**$112,174**	**$23,345**
Discretionary - Appropriation	$82,581	$88,829	$112,174	$23,345

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$897	$973	$897	($76)
22.0 Transportation of Things	$11	$41	$11	($30)
23.1 Rental Payments to GSA	$142	$119	$142	$23
23.2 Rental Payments to Others	-	$11	-	($11)
23.3 Communications, Utilities, and Misc. Charges	$130	$11	$130	$119
25.1 Advisory and Assistance Services	$40,537	$37,510	$38,680	$1,170
25.2 Other Services from Non-Federal Sources	$245	$254	$245	($9)
25.3 Other Goods and Services from Federal Sources	$18,236	$34,311	$44,272	$9,961
25.4 Operation and Maintenance of Facilities	$1,600	$379	$1,600	$1,221
25.7 Operation and Maintenance of Equipment	$10,454	$2,600	$10,454	$7,854
26.0 Supplies and Materials	$60	-	$5,474	$5,474
31.0 Equipment	$769	$132	$769	$637
41.0 Grants, Subsidies, and Contributions	$9,500	$12,411	$9,500	($2,911)
42.0 Insurance Claims and Indemnities	-	$77	-	($77)
Total - Non Pay Object Classes	**$82,581**	**$88,829**	**$112,174**	**$23,345**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Incident Response	$10,011	$9,474	$13,176	$3,702
Watch	$18,466	$18,785	$21,338	$2,553
Threat Detection & Analysis	$40,311	$41,642	$55,417	$13,775
MS-ISAC	$9,500	$9,516	$9,516	$0
Other Costs	$4,293	$9,411	$12,727	$3,316
Total – Non Pay Cost Drivers	**$82,581**	**$88,829**	**$112,174**	**$23,345**

NON PAY NARRATIVE

Incident Response: FY 2019 request includes contract support and toolkits required to properly staff the NCCIC – to include the NCCIC staffing plan program increase request.

Watch: FY 2019 request includes contractor services and equipment purchases.

Threat Detection & Analysis: FY 2019 request includes contractor services, assessment tools and toolkits, and required lab equipment to include the program increase requests for both Cyber Analytics and NCCIC Pensacola operations.

MS-ISAC: FY 2019 request reflects implementation of a cost sharing initiative with state, local, tribal, and territorial partners.

Other Costs: FY 2019 request reflects the Working Capital Fund, shared services, and travel.

NCCIC Planning and Exercises – PPA Level III

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
NCCIC Planning and Exercises	156	120	$88,502	161	131	$84,494	167	130	$84,347	6	(1)	($147)
Total	**156**	**120**	**$88,502**	**161**	**131**	**$84,494**	**167**	**130**	**$84,347**	**6**	**(1)**	**($147)**
Subtotal Discretionary - Appropriation	156	120	$88,502	161	131	$84,494	167	130	$84,347	6	(1)	($147)

The National Cybersecurity and Communications Integration Center (NCCIC) Planning and Exercises PPA provides requirements associated with assisting stakeholders with the planning for cyber activities. This includes running exercises, information sharing activities, outreach, training, system evaluations, and vulnerability management.

NCCIC Planning and Exercises– PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**156**	**120**	**$88,502**
FY 2018 President's Budget	**161**	**131**	**$84,494**
FY 2019 Base Budget	**161**	**131**	**$84,494**
Annualization of 2018 Pay Raise	-	-	$106
Annualization of 2018 Personnel Changes	-	1	$172
Total, Pricing Increases	**-**	**1**	**$278**
Annualization of 2018 Program Changes	-	-	($329)
FTE Rightsizing	-	(5)	($889)
Total, Pricing Decreases	**-**	**(5)**	**($1,218)**
Total Adjustments-to-Base	**-**	**(4)**	**($940)**
FY 2019 Current Services	**161**	**127**	**$83,554**
NCCIC Staffing Plan Increase	6	3	$793
Total, Program Increases	**6**	**3**	**$793**
FY 2019 Request	**167**	**130**	**$84,347**
FY 2018 TO FY 2019 Change	**6**	**(1)**	**($147)**

NCCIC Planning and Exercises – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
NCCIC Planning and Exercises	156	120	$20,612	$171.77	161	131	$22,398	$170.98	167	130	$22,580	$173.69	6	(1)	$182	$2.71
Total	**156**	**120**	**$20,612**	**$171.77**	**161**	**131**	**$22,398**	**$170.98**	**167**	**130**	**$22,580**	**$173.69**	**6**	**(1)**	**$182**	**$2.71**
Discretionary - Appropriation	156	120	$20,612	$171.77	161	131	$22,398	$170.98	167	130	$22,580	$173.69	6	(1)	$182	$2.71

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$13,926	$15,195	$15,670	$475
11.3 Other than Full-Time Permanent	$301	$576	$311	($265)
11.5 Other Personnel Compensation	$263	$336	$272	($64)
12.1 Civilian Personnel Benefits	$6,122	$6,291	$6,327	$36
Total - Personnel Compensation and Benefits	**$20,612**	**$22,398**	**$22,580**	**$182**
Positions and FTE				
Positions - Civilian	156	161	167	6
FTE - Civilian	120	131	130	(1)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	120	$20,612	$171.77	131	$22,398	$170.98	130	$22,580	$173.69	(1)	$182	$2.71
Total – Pay Cost Drivers	**120**	**$20,612**	**$171.77**	**131**	**$22,398**	**$170.98**	**130**	**$22,580**	**$173.69**	**(1)**	**$182**	**$2.71**

NCCIC Planning and Exercises– PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
NCCIC Planning and Exercises	$67,890	$62,096	$61,767	($329)
Total	**$67,890**	**$62,096**	**$61,767**	**($329)**
Discretionary - Appropriation	$67,890	$62,096	$61,767	($329)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$302	$379	$302	($77)
22.0 Transportation of Things	$8	-	$8	$8
23.1 Rental Payments to GSA	$394	-	$394	$394
23.2 Rental Payments to Others	$19	-	$19	$19
23.3 Communications, Utilities, and Misc. Charges	$16	-	$16	$16
25.1 Advisory and Assistance Services	$32,509	$42,639	$26,715	($15,924)
25.2 Other Services from Non-Federal Sources	$77	$8	$77	$69
25.3 Other Goods and Services from Federal Sources	$29,450	$18,100	$29,121	$11,021
25.7 Operation and Maintenance of Equipment	$4,738	$384	$4,738	$4,354
26.0 Supplies and Materials	$1	-	$1	$1
31.0 Equipment	$376	$586	$376	($210)
Total - Non Pay Object Classes	**$67,890**	**$62,096**	**$61,767**	**($329)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Exercises	$6,210	$7,196	$7,196	$0
Cyber and Communications Evaluations	$19,973	$20,356	$20,027	($329)
Computer Network Defense Training & Development	$6,151	$6,269	$6,269	$0
Public & Private Partnerships	$17,220	$17,569	$17,569	$0
Strategy and Planning	$10,144	$3,811	$3,811	$0
Other Costs	$8,192	$6,895	$6,895	$0
Total – Non Pay Cost Drivers	**$67,890**	**$62,096**	**$61,767**	**($329)**

NON PAY NARRATIVE

Exercises: No changes from FY 2018 to FY 2019.

Cyber and Communications Evaluations: FY 2019 request includes resources for tools and contractor services in support of vulnerability coordination, assessments, Watch operations, and operator training.

Computer Network Defense Training & Development: No changes from FY 2018 to FY 2019.

Public & Private Partnerships: No changes from FY 2018 to FY 2019.

Strategy and Planning: No changes from FY 2018 to FY 2019.

Other Costs: No changes from FY 2018 to FY 2019.

Cyber Infrastructure Resilience – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cybersecurity Advisors	27	12	$12,970	30	22	$14,693	30	23	$6,860	-	1	($7,833)
Enhanced Cybersecurity Services	8	6	$16,950	8	7	$17,157	8	5	$13,097	-	(2)	($4,060)
Cybersecurity Education & Awareness	10	9	$14,133	10	9	$10,093	10	9	$10,102	-	-	$9
Total	**45**	**27**	**$44,053**	**48**	**38**	**$41,943**	**48**	**37**	**$30,059**	**-**	**(1)**	**($11,884)**
Subtotal Discretionary - Appropriation	45	27	$44,053	48	38	$41,943	48	37	$30,059	-	(1)	($11,884)

The Cyber Infrastructure Resilience PPA funds efforts to increase the security and resilience of critical infrastructure systems and networks through partnership and information sharing efforts with owners and operators. It also funds the promotion of cybersecurity awareness, training, and education. The PPA funds the Enhanced Cybersecurity Services (ECS) program, a voluntary information-sharing program that provides critical infrastructure owners and operators with an enhanced approach to protecting and defending their networks by sharing classified threat information with qualified program participants. The PPA also funds the Cyber Education and Awareness program, which is tasked to develop the cybersecurity workforce pipeline and enhance cybersecurity education and awareness across the Nation. Additionally, the PPA funds the Cybersecurity Advisors (CSA) initiative. CSAs protect cyber components within the Nation's critical infrastructure by acting as individual representatives of the Department. They form personal, on-the-ground connections with critical infrastructure owners and operators.

Cyber Infrastructure Resilience – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**45**	**27**	**$44,053**
FY 2018 President's Budget	**48**	**38**	**$41,943**
FY 2019 Base Budget	**48**	**38**	**$41,943**
Annualization of 2018 Pay Raise	-	-	$58
Annualization of 2018 Personnel Changes	-	1	$181
Total, Pricing Increases	**-**	**1**	**$239**
Annualization of 2018 Program Changes	-	-	($103)
FTE Rightsizing	-	(2)	($289)
Total, Pricing Decreases	**-**	**(2)**	**($392)**
Total Adjustments-to-Base	**-**	**(1)**	**($153)**
FY 2019 Current Services	**48**	**37**	**$41,790**
ECS Future Year CSP Reduction Decrease	-	-	($3,760)
SECIR Cybersecurity Advisors Decrease	-	-	($7,971)
Total, Program Decreases	**-**	**-**	**($11,731)**
FY 2019 Request	**48**	**37**	**$30,059**
FY 2018 TO FY 2019 Change	**-**	**(1)**	**($11,884)**

Cyber Infrastructure Resilience – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cybersecurity Advisors	27	12	$2,364	$197	30	22	$3,970	$180.45	30	23	$4,431	$192.65	-	1	$461	$12.2
Enhanced Cybersecurity Services	8	6	$904	$150.67	8	7	$1,125	$160.71	8	5	$841	$168.2	-	(2)	($284)	$7.49
Cybersecurity Education & Awareness	10	9	$1,469	$163.22	10	9	$2,288	$254.22	10	9	$1,767	$196.33	-	-	($521)	($57.89)
Total	**45**	**27**	**$4,737**	**$175.44**	**48**	**38**	**$7,383**	**$194.29**	**48**	**37**	**$7,039**	**$190.24**	**-**	**(1)**	**($344)**	**($4.05)**
Discretionary - Appropriation	45	27	$4,737	$175.44	48	38	$7,383	$194.29	48	37	$7,039	$190.24	-	(1)	($344)	($4.05)

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$3,282	$5,141	$5,020	($121)
11.3 Other than Full-Time Permanent	$27	$45	$24	($21)
11.5 Other Personnel Compensation	$22	$57	$34	($23)
12.1 Civilian Personnel Benefits	$1,406	$2,140	$1,961	($179)
Total - Personnel Compensation and Benefits	**$4,737**	**$7,383**	**$7,039**	**($344)**
Positions and FTE				
Positions - Civilian	45	48	48	-
FTE - Civilian	27	38	37	(1)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	27	$4,737	$175.44	38	$7,383	$194.29	37	$7,039	$190.24	(1)	($344)	($4.05)
Total – Pay Cost Drivers	**27**	**$4,737**	**$175.44**	**38**	**$7,383**	**$194.29**	**37**	**$7,039**	**$190.24**	**(1)**	**($344)**	**($4.05)**

Cyber Infrastructure Resilience – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cybersecurity Advisors	$10,606	$10,723	$2,429	($8,294)
Enhanced Cybersecurity Services	$16,046	$16,032	$12,256	($3,776)
Cybersecurity Education & Awareness	$12,664	$7,805	$8,335	$530
Total	**$39,316**	**$34,560**	**$23,020**	**($11,540)**
Discretionary - Appropriation	$39,316	$34,560	$23,020	($11,540)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$245	$61	$108	$47
22.0 Transportation of Things	$11	$26	$9	($17)
23.1 Rental Payments to GSA	$458	$315	$336	$21
23.2 Rental Payments to Others	$249	$8	$249	$241
23.3 Communications, Utilities, and Misc. Charges	$247	$3,501	$247	($3,254)
25.1 Advisory and Assistance Services	$21,963	$5,976	$12,548	$6,572
25.2 Other Services from Non-Federal Sources	$69	$8,232	$51	($8,181)
25.3 Other Goods and Services from Federal Sources	$8,522	$13,132	$2,579	($10,553)
25.4 Operation and Maintenance of Facilities	$471	-	$471	$471
25.7 Operation and Maintenance of Equipment	$945	$212	$945	$733
25.8 Subsistence & Support of Persons	$728	$603	$218	($385)
26.0 Supplies and Materials	$13	$41	$13	($28)
31.0 Equipment	$640	$89	$634	$545
32.0 Land and Structures	$205	$124	$62	($62)
41.0 Grants, Subsidies, and Contributions	$4,550	$2,240	$4,550	$2,310
Total - Non Pay Object Classes	**$39,316**	**$34,560**	**$23,020**	**($11,540)**

Cybersecurity Advisors PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cybersecurity Advisors	27	12	$12,970	30	22	$14,693	30	23	$6,860	-	1	($7,833)
Total	**27**	**12**	**$12,970**	**30**	**22**	**$14,693**	**30**	**23**	**$6,860**	**-**	**1**	**($7,833)**
Subtotal Discretionary - Appropriation	27	12	$12,970	30	22	$14,693	30	23	$6,860	-	1	($7,833)

The Cybersecurity Advisor (CSA) PPA provides direct coordination, outreach, and regional support in order to protect cyber components essential to the sustainability, preparedness, and protection of the Nation's critical infrastructure and state, local, tribal, and territorial governments. CSAs bolster the cybersecurity preparedness, risk mitigation, and incident response capabilities of these entities and bring them into closer alignment with the federal government. CSAs include regionally-located DHS personnel assigned to one of the 10 CSA regions and/or aligned to the Federal Emergency Management Agency (FEMA) regions. CSAs represent a front-line approach to promote resilience of key cyber infrastructures throughout the United States and its territories.

Figure 5: CSA ($K and FTP)

Cybersecurity Advisors (CSA)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
# of CSA FTP	27	30	30
CSA Funding ($000)	$12,970	$14,693	$6,860

Cybersecurity Advisors – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**27**	**12**	**$12,970**
FY 2018 President's Budget	**30**	**22**	**$14,693**
FY 2019 Base Budget	**30**	**22**	**$14,693**
Annualization of 2018 Pay Raise	-	-	$19
Annualization of 2018 Personnel Changes	-	1	$181
Total, Pricing Increases	**-**	**1**	**$200**
Annualization of 2018 Program Changes	-	-	($62)
Total, Pricing Decreases	**-**	**-**	**($62)**
Total Adjustments-to-Base	**-**	**1**	**$138**
FY 2019 Current Services	**30**	**23**	**$14,831**
SECIR Cybersecurity Advisors Decrease	-	-	($7,971)
Total, Program Decreases	**-**	**-**	**($7,971)**
FY 2019 Request	**30**	**23**	**$6,860**
FY 2018 TO FY 2019 Change	**-**	**1**	**($7,833)**

Cybersecurity Advisors – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cybersecurity Advisors	27	12	$2,364	$197	30	22	$3,970	$180.45	30	23	$4,431	$192.65	-	1	$461	$12.2
Total	**27**	**12**	**$2,364**	**$197**	**30**	**22**	**$3,970**	**$180.45**	**30**	**23**	**$4,431**	**$192.65**	**-**	**1**	**$461**	**$12.2**
Discretionary - Appropriation	27	12	$2,364	$197	30	22	$3,970	$180.45	30	23	$4,431	$192.65	-	1	$461	$12.2

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$1,662	$2,589	$3,168	$579
11.5 Other Personnel Compensation	$11	-	$20	$20
12.1 Civilian Personnel Benefits	$691	$1,381	$1,243	($138)
Total - Personnel Compensation and Benefits	**$2,364**	**$3,970**	**$4,431**	**$461**
Positions and FTE				
Positions - Civilian	27	30	30	-
FTE - Civilian	12	22	23	1

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	12	$2,364	$197	22	$3,970	$180.45	23	$4,431	$192.65	1	$461	$12.20
Total – Pay Cost Drivers	**12**	**$2,364**	**$197**	**22**	**$3,970**	**$180.45**	**23**	**$4,431**	**$192.65**	**1**	**$461**	**$12.20**

Cybersecurity Advisors – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cybersecurity Advisors	$10,606	$10,723	$2,429	($8,294)
Total	**$10,606**	**$10,723**	**$2,429**	**($8,294)**
Discretionary - Appropriation	$10,606	$10,723	$2,429	($8,294)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$195	-	$58	$58
22.0 Transportation of Things	$3	-	$1	$1
23.1 Rental Payments to GSA	$174	$132	$52	($80)
25.1 Advisory and Assistance Services	$1,910	$2,388	$614	($1,774)
25.2 Other Services from Non-Federal Sources	$25	$2	$7	$5
25.3 Other Goods and Services from Federal Sources	$7,358	$7,474	$1,415	($6,059)
25.8 Subsistence & Support of Persons	$728	$603	$218	($385)
31.0 Equipment	$8	-	$2	$2
32.0 Land and Structures	$205	$124	$62	($62)
Total - Non Pay Object Classes	**$10,606**	**$10,723**	**$2,429**	**($8,294)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
CSA Assessments	$9,403	$9,023	$1,867	($7,156)
CSA Engagements and Support	$1,203	$1,700	$562	($1,138)
Total – Non Pay Cost Drivers	**$10,606**	**$10,723**	**$2,429**	**($8,294)**

NON PAY NARRATIVE

CSA Assessments: FY 2019 request includes reduced funding and contractor services for Cyber Resilience Reviews (CRRs), assessment support, and the Cyber Infrastructure Survey Tool.

CSA Engagements and Support: FY 2019 request includes reduced contractor support and travel resources for CSA logistical/mission support and field IT support.

Enhanced Cybersecurity Services – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Enhanced Cybersecurity Services	8	6	$16,950	8	7	$17,157	8	5	$13,097	-	(2)	($4,060)
Total	**8**	**6**	**$16,950**	**8**	**7**	**$17,157**	**8**	**5**	**$13,097**	**-**	**(2)**	**($4,060)**
Subtotal Discretionary - Appropriation	8	6	$16,950	8	7	$17,157	8	5	$13,097	-	(2)	($4,060)

The Enhanced Cybersecurity Services (ECS) PPA supports United States-based public and private entities to increase their resilience against cyber threats. ECS is an intrusion prevention capability that helps United States-based organizations, critical infrastructure, and state and local governments protect their computer systems from unauthorized access, exploitation, and/or data exfiltration. The program works by sharing sensitive and classified government-vetted cyber threat information with qualified Commercial Service Providers (CSPs), who, in turn, use that cyber threat information to block certain types of malicious traffic from entering customer networks. ECS is a voluntary program and is meant to augment, but not replace, existing cybersecurity capabilities

Enhanced Cybersecurity Services – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**8**	**6**	**$16,950**
FY 2018 President's Budget	**8**	**7**	**$17,157**
FY 2019 Base Budget	**8**	**7**	**$17,157**
Annualization of 2018 Pay Raise	-	-	$5
Total, Pricing Increases	**-**	**-**	**$5**
Annualization of 2018 Program Changes	-	-	($16)
FTE Rightsizing	-	(2)	($289)
Total, Pricing Decreases	**-**	**(2)**	**($305)**
Total Adjustments-to-Base	**-**	**(2)**	**($300)**
FY 2019 Current Services	**8**	**5**	**$16,857**
ECS Future Year CSP Reduction Decrease	-	-	($3,760)
Total, Program Decreases	**-**	**-**	**($3,760)**
FY 2019 Request	**8**	**5**	**$13,097**
FY 2018 TO FY 2019 Change	**-**	**(2)**	**($4,060)**

Enhanced Cybersecurity Services – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Enhanced Cybersecurity Services	8	6	$904	$150.67	8	7	$1,125	$160.71	8	5	$841	$168.2	-	(2)	($284)	$7.49
Total	**8**	**6**	**$904**	**$150.67**	**8**	**7**	**$1,125**	**$160.71**	**8**	**5**	**$841**	**$168.2**	**-**	**(2)**	**($284)**	**$7.49**
Discretionary - Appropriation	8	6	$904	$150.67	8	7	$1,125	$160.71	8	5	$841	$168.2	-	(2)	($284)	$7.49

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$609	$828	$629	($199)
11.3 Other than Full-Time Permanent	$27	$13	$24	$11
11.5 Other Personnel Compensation	$5	$4	$6	$2
12.1 Civilian Personnel Benefits	$263	$280	$182	($98)
Total - Personnel Compensation and Benefits	**$904**	**$1,125**	**$841**	**($284)**
Positions and FTE				
Positions - Civilian	8	8	8	-
FTE - Civilian	6	7	5	(2)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	6	$904	$150.67	7	$1,125	$160.71	5	$841	$168.20	(2)	($284)	$7.49
Total – Pay Cost Drivers	**6**	**$904**	**$150.67**	**7**	**$1,125**	**$160.71**	**5**	**$841**	**$168.20**	**(2)**	**($284)**	**$7.49**

Enhanced Cybersecurity Services – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Enhanced Cybersecurity Services	$16,046	$16,032	$12,256	($3,776)
Total	**$16,046**	**$16,032**	**$12,256**	**($3,776)**
Discretionary - Appropriation	$16,046	$16,032	$12,256	($3,776)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$11	$42	$11	($31)
22.0 Transportation of Things	$3	$24	$3	($21)
23.1 Rental Payments to GSA	$148	$141	$148	$7
23.2 Rental Payments to Others	$249	-	$249	$249
23.3 Communications, Utilities, and Misc. Charges	-	$2,918	-	($2,918)
25.1 Advisory and Assistance Services	$14,562	$248	$10,772	$10,524
25.2 Other Services from Non-Federal Sources	$10	$8,222	$10	($8,212)
25.3 Other Goods and Services from Federal Sources	$189	$4,402	$189	($4,213)
25.7 Operation and Maintenance of Equipment	$404	-	$404	$404
26.0 Supplies and Materials	$1	$35	$1	($34)
31.0 Equipment	$469	-	$469	$469
Total - Non Pay Object Classes	**$16,046**	**$16,032**	**$12,256**	**($3,776)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Certification & Accreditation	$12,195	$11,134	$7,724	($3,410)
Program Management & Support	$3,851	$4,898	$4,532	($366)
Total – Non Pay Cost Drivers	**$16,046**	**$16,032**	**$12,256**	**($3,776)**

NON PAY NARRATIVE

Certification & Accreditation: FY 2019 request reduces contractor services for specialized information assurance and system security engineering services.

Program Management & Support: FY 2019 reduces funding and contractor services for program management and support activities, including assessments, metrics, and capabilities planning.

Cybersecurity Education & Awareness – PPA Level III

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cybersecurity Education & Awareness	10	9	$14,133	10	9	$10,093	10	9	$10,102	-	-	$9
Total	**10**	**9**	**$14,133**	**10**	**9**	**$10,093**	**10**	**9**	**$10,102**	**-**	**-**	**$9**
Subtotal Discretionary - Appropriation	10	9	$14,133	10	9	$10,093	10	9	$10,102	-	-	$9

The Cybersecurity Education and Awareness PPA funds national cybersecurity public awareness, education, training, and workforce development efforts to develop a more resilient and capable cyber Nation. A goal of the Department is to continue building resilient cyber-capable communities, effecting the long-term goal of educating students, teachers, and the workforce (current and prospective) to build a comprehensive cybersecurity professional capability. The PPA supports NPPD's leadership role in cultivating the Nation's current and future cybersecurity workforce, institutionalizing cybersecurity as a profession, providing training and other developmental resources, and educating the public about cybersecurity careers and best practices in online safety. The PPA will also fund the National Cybersecurity Awareness grant program.

Figure 6: Cyber Education and Awareness Programs ($K)

NPPD Subcomponent	Appropriation	PPA Level I	PPA Level II	PPA Level III	Activities ($K)	FY17 Enacted Budget	FY18 Budget Request	FY19 Budget Request
Office of Cybersecurity & Communications	Operations & Support	Cybersecurity	Cyber Infrastructure Resilience	Cyber Education & Awareness	Salaries & Benefits	$1,469	$2,288	$1,767
					Program Support	$878	$878	$842
					Higher Education	$1,000	$0	$300
					Training & Workforce Development	$6,168	$6,927	$6,643
					K-12 Education	$3,000	$0	$0
					Education Outreach & Awareness	$1,618	$0	$550
					TOTAL, Cyber Education & Awareness	**$14,133**	**$10,093**	**$10,102**

Higher Education: Provides support to the National Centers of Academic Excellence (CAE), Scholarship for Service (SFS), and initiatives with higher education institutions (e.g., community colleges, four-year education institutions, etc.) using the Cybersecurity Education and Training Assistance Program (CETAP) grant. Efforts prepare a growing number of cybersecurity professionals to meet the need to reduce vulnerabilities in the Nation's networks. While the CETAP grant remains unfunded in FY 2019, DHS will fund the Scholarship for Service program, which provides scholarships to over 60 universities across the country for up to three years to study cybersecurity.

Training & Workforce Development: Provides support to the National Initiative for Cyber Education (NICE), Federal Cybersecurity Training Events (FedCTE), and Federal Virtual Training Environment (FedVTE) programs. Training and Workforce Development also funds the National Initiative for Cybersecurity Careers and Studies (NICCS) Portal, which is the Nation's one-stop-shop for cybersecurity careers and studies. The NICCS Portal connects the public with information regarding cybersecurity awareness, degree programs, training, careers, and talent management.

K through 12 Education: This activity utilized the CETAP grant to support the development of cybersecurity-integrated high school curricula - which middle and high schools across the country could adopt and offer to numerous students each year. As of May 2017, 5,540 teachers downloaded and used the curricula; and an estimated 1,216,706 students have received instruction to date. The CETAP grant remains unfunded in FY2019 due to higher priority requirements within this PPA.

Education Outreach and Awareness: Supports all cybersecurity outreach and awareness activities, including: supporting cyber competitions, leading the National Cybersecurity Awareness (NCSA) campaign, and funding the NCSA grant.

Cybersecurity Education & Awareness – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**10**	**9**	**$14,133**
FY 2018 President's Budget	**10**	**9**	**$10,093**
FY 2019 Base Budget	**10**	**9**	**$10,093**
Annualization of 2018 Pay Raise	-	-	$34
Total, Pricing Increases	**-**	**-**	**$34**
Annualization of 2018 Program Changes	-	-	($25)
Total, Pricing Decreases	**-**	**-**	**($25)**
Total Adjustments-to-Base	**-**	**-**	**$9**
FY 2019 Current Services	**10**	**9**	**$10,102**
FY 2019 Request	**10**	**9**	**$10,102**
FY 2018 TO FY 2019 Change	**-**	**-**	**$9**

Cybersecurity Education & Awareness – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cybersecurity Education & Awareness	10	9	$1,469	$163.22	10	9	$2,288	$254.22	10	9	$1,767	$196.33	-	-	($521)	($57.89)
Total	**10**	**9**	**$1,469**	**$163.22**	**10**	**9**	**$2,288**	**$254.22**	**10**	**9**	**$1,767**	**$196.33**	**-**	**-**	**($521)**	**($57.89)**
Discretionary - Appropriation	10	9	$1,469	$163.22	10	9	$2,288	$254.22	10	9	$1,767	$196.33	-	-	($521)	($57.89)

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$1,011	$1,724	$1,223	($501)
11.3 Other than Full-Time Permanent	-	$32	-	($32)
11.5 Other Personnel Compensation	$6	$53	$8	($45)
12.1 Civilian Personnel Benefits	$452	$479	$536	$57
Total - Personnel Compensation and Benefits	**$1,469**	**$2,288**	**$1,767**	**($521)**
Positions and FTE				
Positions - Civilian	10	10	10	-
FTE - Civilian	9	9	9	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	9	$1,469	$163.22	9	$2,288	$254.22	9	$1,767	$196.33	-	($521)	($57.89)
Total – Pay Cost Drivers	**9**	**$1,469**	**$163.22**	**9**	**$2,288**	**$254.22**	**9**	**$1,767**	**$196.33**	**-**	**($521)**	**($57.89)**

Cybersecurity Education & Awareness – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cybersecurity Education & Awareness	$12,664	$7,805	$8,335	$530
Total	**$12,664**	**$7,805**	**$8,335**	**$530**
Discretionary - Appropriation	$12,664	$7,805	$8,335	$530

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$39	$19	$39	$20
22.0 Transportation of Things	$5	$2	$5	$3
23.1 Rental Payments to GSA	$136	$42	$136	$94
23.2 Rental Payments to Others	-	$8	-	($8)
23.3 Communications, Utilities, and Misc. Charges	$247	$583	$247	($336)
25.1 Advisory and Assistance Services	$5,491	$3,340	$1,162	($2,178)
25.2 Other Services from Non-Federal Sources	$34	$8	$34	$26
25.3 Other Goods and Services from Federal Sources	$975	$1,256	$975	($281)
25.4 Operation and Maintenance of Facilities	$471	-	$471	$471
25.7 Operation and Maintenance of Equipment	$541	$212	$541	$329
26.0 Supplies and Materials	$12	$6	$12	$6
31.0 Equipment	$163	$89	$163	$74
41.0 Grants, Subsidies, and Contributions	$4,550	$2,240	$4,550	$2,310
Total - Non Pay Object Classes	**$12,664**	**$7,805**	**$8,335**	**$530**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Higher Education	$1,000	$0	$300	$300
Training and Workforce Development	$6,168	$6,927	$6,643	($284)
K-12 Education Program	$3,000	$0	$0	$0
Education Outreach and Engagement	$1,618	$0	$550	$550
Programmatic Support	$878	$878	$842	($36)
Total – Non Pay Cost Drivers	**$12,664**	**$7,805**	**$8,335**	**$530**

NON PAY NARRATIVE

Higher Education: In FY 2019, DHS will fund the Scholarship for Service (SFS) program, which provides scholarships through the National Science Foundation, to over 60 universities across the country for up to three years to study cybersecurity; the CETAP grant remains unfunded.

Training and Workforce Development: FY 2019 request decreases funding for contractor support in support of the National Initiative for Cyber Education (NICE) and other Cyber Education activities.

K-12 Education Program: No change between FY 2018 and FY 2019.

Education Outreach and Engagement: FY 2019 funding supports cybersecurity outreach and awareness activities such as cyber competitions and the National Cybersecurity Awareness (NCSA) campaign, including the NCSA grant.

Programmatic Support: FY 2019 request decreases funding for contractor support.

Federal Cybersecurity – PPA Level II

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Federal Network Resilience	79	51	$35,013	87	63	$42,766	94	71	$49,834	7	8	$7,068
Continuous Diagnostics and Mitigation	55	37	$7,565	55	40	$93,780	55	40	$112,089	-	-	$18,309
National Cybersecurity Protection System	177	127	$385,879	177	152	$341,103	177	139	$296,677	-	(13)	($44,426)
Total	**311**	**215**	**$428,457**	**319**	**255**	**$477,649**	**326**	**250**	**$458,600**	**7**	**(5)**	**($19,049)**
Subtotal Discretionary - Appropriation	311	215	$428,457	319	255	$477,649	326	250	$458,600	7	(5)	($19,049)

The Federal Cybersecurity program includes Continuous Diagnostics & Mitigation (CDM), National Cybersecurity Protection System (NCPS), and Federal Network Resilience (FNR). NPPD protects federal networks through CDM and NCPS programs, such as EINSTEIN 3 Accelerated. These programs improve the security posture of high value assets and provide governance and training to implement cybersecurity requirements across the Federal Enterprise. The NCPS program is an integrated system that delivers intrusion detection, analytics, intrusion prevention, and information-sharing capabilities to public and private stakeholder groups across the Homeland Security Enterprise. This request will allow NPPD to continue providing the necessary tools and services for all phases of the CDM program that enable Federal and other government IT networks to strengthen the security posture of their cyber networks. It will also enable continued enhancements to the protection of federal civilian departments' and agencies' IT infrastructures from cyber threats through the execution of the NCPS program and support provided by FNR. Together, CDM and NCPS share a common goal of protecting infrastructure by providing a common baseline of security for the Federal Civilian Government. FNR builds upon CDM and NCPS's efforts by enabling federal departments and agencies to enhance their cybersecurity posture through coordination, tools, and support services.

Federal Cybersecurity – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**311**	**215**	**$428,457**
FY 2018 President's Budget	**319**	**255**	**$477,649**
FY 2019 Base Budget	**319**	**255**	**$477,649**
Transfer to PC&I from O&S for National Cybersecurity Protection System (NCPS)	-	-	($68,000)
Total Transfers	**-**	**-**	**($68,000)**
Annualization of 2018 Pay Raise	-	-	$233
Annualization of 2018 Personnel Changes	-	4	$857
Total, Pricing Increases	**-**	**4**	**$1,090**
Annualization of 2018 Program Changes	-	-	($720)
FTE Rightsizing	-	(13)	($2,336)
Termination of Nonrecurring CDM Operations and Maintenance	-	-	($42,000)
Total, Pricing Decreases	**-**	**(13)**	**($45,056)**
Total Adjustments-to-Base	**-**	**(9)**	**($111,966)**
FY 2019 Current Services	**319**	**246**	**$365,683**
Build-out of Pensacola Facility Increase	-	-	$6,000
CDM Alignment to Cost Estimate & Dashboard/Phase 3 Increase	-	-	$60,370
Federal Cybersecurity Governance & Training Support Increase	7	4	$6,344
NCPS Operational Support Activities Increase	-	-	$20,203
Total, Program Increases	**7**	**4**	**$92,917**
FY 2019 Request	**326**	**250**	**$458,600**
FY 2018 TO FY 2019 Change	**7**	**(5)**	**($19,049)**

Federal Cybersecurity – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Federal Network Resilience	79	51	$10,272	$201.41	87	63	$13,434	$213.24	94	71	$14,864	$209.35	7	8	$1,430	($3.89)
Continuous Diagnostics and Mitigation	55	37	$7,530	$203.51	55	40	$6,124	$153.1	55	40	$6,153	$153.82	-	-	$29	$0.72
National Cybersecurity Protection System	177	127	$24,480	$192.76	177	152	$29,538	$194.33	177	139	$27,341	$196.7	-	(13)	($2,197)	$2.37
Total	**311**	**215**	**$42,282**	**$196.66**	**319**	**255**	**$49,096**	**$192.53**	**326**	**250**	**$48,358**	**$193.43**	**7**	**(5)**	**($738)**	**$0.9**
Discretionary - Appropriation	311	215	$42,282	$196.66	319	255	$49,096	$192.53	326	250	$48,358	$193.43	7	(5)	($738)	$0.9

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$28,659	$33,640	$34,072	$432
11.3 Other than Full-Time Permanent	$391	$452	$415	($37)
11.5 Other Personnel Compensation	$373	$392	$423	$31
12.1 Civilian Personnel Benefits	$12,859	$14,612	$13,448	($1,164)
Total - Personnel Compensation and Benefits	**$42,282**	**$49,096**	**$48,358**	**($738)**
Positions and FTE				
Positions - Civilian	311	319	326	7
FTE - Civilian	215	255	250	(5)

Federal Cybersecurity – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Federal Network Resilience	$24,741	$29,332	$34,970	$5,638
Continuous Diagnostics and Mitigation	$35	$87,656	$105,936	$18,280
National Cybersecurity Protection System	$361,399	$311,565	$269,336	($42,229)
Total	**$386,175**	**$428,553**	**$410,242**	**($18,311)**
Discretionary - Appropriation	$386,175	$428,553	$410,242	($18,311)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$218	$203	$209	$6
22.0 Transportation of Things	$80	$16	$46	$30
23.1 Rental Payments to GSA	$2,969	$4,142	$4,827	$685
23.2 Rental Payments to Others	$5	$330	$304	($26)
23.3 Communications, Utilities, and Misc. Charges	$11	$2	$1	($1)
24.0 Printing and Reproduction	$24	-	-	-
25.1 Advisory and Assistance Services	$294,958	$251,376	$255,901	$4,525
25.2 Other Services from Non-Federal Sources	$349	$93,326	$5,241	($88,085)
25.3 Other Goods and Services from Federal Sources	$43,249	$40,782	$107,074	$66,292
25.4 Operation and Maintenance of Facilities	$1,285	$1,988	$1,723	($265)
25.5 Research and Development Contracts	-	$512	$443	($69)
25.7 Operation and Maintenance of Equipment	$12,085	$18,202	$19,474	$1,272
25.8 Subsistence & Support of Persons	-	$22	$19	($3)
26.0 Supplies and Materials	$68	$18	$48	$30
31.0 Equipment	$30,782	$12,085	$10,136	($1,949)
32.0 Land and Structures	$92	$5,371	$4,643	($728)
42.0 Insurance Claims and Indemnities	-	$178	$153	($25)
Total - Non Pay Object Classes	**$386,175**	**$428,553**	**$410,242**	**($18,311)**

Federal Network Resilience PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Federal Network Resilience	79	51	$35,013	87	63	$42,766	94	71	$49,834	7	8	$7,068
Total	**79**	**51**	**$35,013**	**87**	**63**	**$42,766**	**94**	**71**	**$49,834**	**7**	**8**	**$7,068**
Subtotal Discretionary - Appropriation	79	51	$35,013	87	63	$42,766	94	71	$49,834	7	8	$7,068

The Federal Network Resilience (FNR) PPA in the Operations & Support appropriation includes funds necessary to provide direct cybersecurity support, coordination, and communication to all Federal Executive Branch agencies.

FNR manages the Trusted Internet Connection (TIC) program in support of Administration TIC policies. The TIC program assists with the development of TIC policies; develops Reference Architectures and capabilities for the Federal Enterprise and other related government-wide network and infrastructure security efforts; and provides best practice requirements for federal government-wide contracts, including the General Services Administration's (GSA) Federal Risk and Authorization Management Program (FedRAMP) for cloud-based environments.

FNR's Federal Information Security Modernization Act (FISMA) Initiative supports the mitigation of cyber risk across federal agencies, aligning outcome-oriented FISMA metrics with the Cybersecurity Framework. It also provides the Office of Management and Budget (OMB) and federal departments and agencies with support to understand current cybersecurity baselines while increasing future baselines.

FNR's Information Systems Security Line of Business (ISSLoB) has worked to improve the level of information systems security across government by identifying agency needs for cybersecurity services. It has also translated agency customer requirements into new and enhanced services, offered either by NPPD directly or through Shared Service Centers overseen by DHS, to ensure that these federal service providers are delivering adequate service based on agency needs. The ISSLoB program plays a key role in the promotion of relevant cybersecurity services for individual federal agencies. The ISSLoB program team tailors and coordinates the delivery of services based on individual agency needs, and ensures that the Department's offered services are addressing the most significant threats to federal networks and supporting agency risk management programs.

FNR's Operational Assessments provide operational and technical assistance to federal departments and agencies to improve their cybersecurity postures through the development and execution of tailored programs and services and with cybersecurity architecture/solutions planning and consulting on an as-needed basis. These Operational Assessments ensure that agencies adhere to appropriate mandates and adopt vetted and validated best practices.

Federal Network Resilience – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**79**	**51**	**$35,013**
FY 2018 President's Budget	**87**	**63**	**$42,766**
FY 2019 Base Budget	**87**	**63**	**$42,766**
Annualization of 2018 Pay Raise	-	-	$64
Annualization of 2018 Personnel Changes	-	4	$857
Total, Pricing Increases	**-**	**4**	**$921**
Annualization of 2018 Program Changes	-	-	($197)
Total, Pricing Decreases	**-**	**-**	**($197)**
Total Adjustments-to-Base	**-**	**4**	**$724**
FY 2019 Current Services	**87**	**67**	**$43,490**
Federal Cybersecurity Governance & Training Support Increase	7	4	$6,344
Total, Program Increases	**7**	**4**	**$6,344**
FY 2019 Request	**94**	**71**	**$49,834**
FY 2018 TO FY 2019 Change	**7**	**8**	**$7,068**

Federal Network Resilience – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Federal Network Resilience	79	51	$10,272	$201.41	87	63	$13,434	$213.24	94	71	$14,864	$209.35	7	8	$1,430	($3.89)
Total	**79**	**51**	**$10,272**	**$201.41**	**87**	**63**	**$13,434**	**$213.24**	**94**	**71**	**$14,864**	**$209.35**	**7**	**8**	**$1,430**	**($3.89)**
Discretionary - Appropriation	79	51	$10,272	$201.41	87	63	$13,434	$213.24	94	71	$14,864	$209.35	7	8	$1,430	($3.89)

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$7,053	$9,265	$10,540	$1,275
11.3 Other than Full-Time Permanent	$108	$106	$145	$39
11.5 Other Personnel Compensation	$86	$112	$116	$4
12.1 Civilian Personnel Benefits	$3,025	$3,951	$4,063	$112
Total - Personnel Compensation and Benefits	**$10,272**	**$13,434**	**$14,864**	**$1,430**
Positions and FTE				
Positions - Civilian	79	87	94	7
FTE - Civilian	51	63	71	8

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	51	$10,272	$201.41	63	$13,434	$213.24	71	$14,864	$209.35	8	$1,430	($3.89)
Total Pay Cost Drivers	**51**	**$10,272**	**$201.41**	**63**	**$13,434**	**$213.24**	**71**	**$14,864**	**$209.35**	**8**	**$1,430**	**($3.89)**

Federal Network Resilience – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Federal Network Resilience	$24,741	$29,332	$34,970	$5,638
Total	**$24,741**	**$29,332**	**$34,970**	**$5,638**
Discretionary - Appropriation	$24,741	$29,332	$34,970	$5,638

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$30	$19	$30	$11
22.0 Transportation of Things	$10	$3	$10	$7
23.1 Rental Payments to GSA	$356	-	$356	$356
23.2 Rental Payments to Others	$5	-	$5	$5
23.3 Communications, Utilities, and Misc. Charges	-	$1	-	($1)
25.1 Advisory and Assistance Services	$16,481	$18,490	$16,463	($2,027)
25.2 Other Services from Non-Federal Sources	$109	$49	$109	$60
25.3 Other Goods and Services from Federal Sources	$6,599	$10,118	$16,846	$6,728
25.4 Operation and Maintenance of Facilities	$1	-	$1	$1
25.7 Operation and Maintenance of Equipment	$1,069	$3	$1,069	$1,066
26.0 Supplies and Materials	$14	$18	$14	($4)
31.0 Equipment	$67	$631	$67	($564)
Total - Non Pay Object Classes	**$24,741**	**$29,332**	**$34,970**	**$5,638**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
FISMA	$7,718	$10,755	$16,393	$5,638
Trusted Internet Connections (TIC)	$3,792	$3,764	$3,764	$0
Design and Engineering	$3,316	$4,564	$4,564	$0
Cyber Operational Reviews	$5,147	$4,727	$4,727	$0
Information Systems Security Lines of Business	$2,637	$2,663	$2,663	$0
Other Costs	$2,131	$2,859	$2,859	$0
Total Non Pay Cost Drivers	**$24,741**	**$29,332**	**$34,970**	**$5,638**

NON PAY NARRATIVE

FISMA: FY 2019 request enhances the support required to provide federal departments and agencies with the necessary cybersecurity governance guidance and training materials to ensure successful implantation and usage of critical cybersecurity programs and emerging requirements.

Trusted Internet Connections (TIC): No change from FY 2018 to FY 2019.

Design and Engineering: No change from FY 2018 to FY 2019.

Cyber Operational Reviews: No change from FY 2018 to FY 2019.

Information Systems Security Line of Business: No change from FY 2018 to FY 2019.

Other Costs: FY 2019 request reflects Working Capital Fund, shared services, and travel.

Continuous Diagnostics and Mitigation – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Continuous Diagnostics and Mitigation	55	37	$7,565	55	40	$93,780	55	40	$112,089	-	-	$18,309
Total	**55**	**37**	**$7,565**	**55**	**40**	**$93,780**	**55**	**40**	**$112,089**	**-**	**-**	**$18,309**
Subtotal Discretionary - Appropriation	55	37	$7,565	55	40	$93,780	55	40	$112,089	-	-	$18,309

The Continuous Diagnostics & Mitigation (CDM) PPA in the Operations & Support appropriation provides cybersecurity tools, integration services, and dashboards to all participating agencies to enable them to improve their respective security postures by reducing the attack surface of their networks.

CDM will provision Agency Dashboards to provide participating agencies with near real-time awareness of their agencies' cybersecurity postures. This awareness will enable agencies to streamline compliance and reporting, increase the visibility into vulnerabilities for consistent risk evaluations, and align responses to fix their worst problems first. CDM will also maintain a Federal Dashboard, which will receive summary data feeds from Agency Dashboards to provide increased visibility into the federal cybersecurity posture. The Federal Dashboard will enable coordinated and improved federal cybersecurity response capabilities and enable enhanced trending capabilities to measure agency improvements.

Continuous Diagnostics and Mitigation – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**55**	**37**	**$7,565**
FY 2018 President's Budget	**55**	**40**	**$93,780**
FY 2019 Base Budget	**55**	**40**	**$93,780**
Annualization of 2018 Pay Raise	-	-	$29
Total, Pricing Increases	**-**	**-**	**$29**
Annualization of 2018 Program Changes	-	-	($90)
Termination of Nonrecurring CDM Operations and Maintenance	-	-	($42,000)
Total, Pricing Decreases	**-**	**-**	**($42,090)**
Total Adjustments-to-Base	**-**	**-**	**($42,061)**
FY 2019 Current Services	**55**	**40**	**$51,719**
CDM Alignment to Cost Estimate & Dashboard/Phase 3 Increase	-	-	$60,370
Total, Program Increases	**-**	**-**	**$60,370**
FY 2019 Request	**55**	**40**	**$112,089**
FY 2018 TO FY 2019 Change	**-**	**-**	**$18,309**

Continuous Diagnostics and Mitigation – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Continuous Diagnostics and Mitigation	55	37	$7,530	$203.51	55	40	$6,124	$153.1	55	40	$6,153	$153.82	-	-	$29	$0.72
Total	**55**	**37**	**$7,530**	**$203.51**	**55**	**40**	**$6,124**	**$153.1**	**55**	**40**	**$6,153**	**$153.82**	**-**	**-**	**$29**	**$0.72**
Discretionary - Appropriation	55	37	$7,530	$203.51	55	40	$6,124	$153.1	55	40	$6,153	$153.82	-	-	$29	$0.72

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$5,082	$4,208	$4,237	$29
11.3 Other than Full-Time Permanent	$84	$48	$48	-
11.5 Other Personnel Compensation	$58	$51	$51	-
12.1 Civilian Personnel Benefits	$2,306	$1,817	$1,817	-
Total - Personnel Compensation and Benefits	**$7,530**	**$6,124**	**$6,153**	**$29**
Positions and FTE				
Positions - Civilian	55	55	55	-
FTE - Civilian	37	40	40	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	37	$7,530	$203.51	40	$6,124	$153.10	40	$6,135	$153.82	0	$29	$0.72
Total – Pay Cost Drivers	**37**	**$7,530**	**$203.51**	**40**	**$6,124**	**$153.10**	**40**	**$6,135**	**$153.82**	**0**	**$29**	**$0.72**

Continuous Diagnostics and Mitigation – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Continuous Diagnostics and Mitigation	$35	$87,656	$105,936	$18,280
Total	**$35**	**$87,656**	**$105,936**	**$18,280**
Discretionary - Appropriation	$35	$87,656	$105,936	$18,280

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$11	-	$20	$20
22.0 Transportation of Things	-	-	$25	$25
23.1 Rental Payments to GSA	-	-	$890	$890
23.2 Rental Payments to Others	-	-	$14	$14
25.1 Advisory and Assistance Services	-	-	$38,117	$38,117
25.2 Other Services from Non-Federal Sources	$11	$87,656	$273	($87,383)
25.3 Other Goods and Services from Federal Sources	-	-	$63,720	$63,720
25.4 Operation and Maintenance of Facilities	-	-	$3	$3
25.7 Operation and Maintenance of Equipment	$11	-	$2,673	$2,673
26.0 Supplies and Materials	$2	-	$34	$34
31.0 Equipment	-	-	$167	$167
Total - Non Pay Object Classes	**$35**	**$87,656**	**$105,936**	**$18,280**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
CDM Operations and Maintenance	$15	$59,487	$84,304	$24,817
Other Costs	$20	$28,169	$21,632	($6,537)
Total - Non Pay Cost Drivers	**$35**	**$87,656**	**$105,936**	**$18,280**

NON PAY NARRATIVE

CDM Operations and Maintenance: FY 2019 funding reflects operations and maintenance needs, to include the program increase request for alignment to the CDM's program cost estimate and supporting the Dashboard and Phase 3.

Other Costs: FY 2019 request reflects Working Capital Fund, shared services, and travel.

National Cybersecurity Protection System – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
National Cybersecurity Protection System	177	127	$385,879	177	152	$341,103	177	139	$296,677	-	(13)	($44,426)
Total	**177**	**127**	**$385,879**	**177**	**152**	**$341,103**	**177**	**139**	**$296,677**	**-**	**(13)**	**($44,426)**
Subtotal Discretionary - Appropriation	177	127	$385,879	177	152	$341,103	177	139	$296,677	-	(13)	($44,426)

The National Cybersecurity Protection System (NCPS) PPA in the Operations & Support appropriation is an integral part of the cybersecurity community, providing near real-time protection and information to federal civilian departments and agencies; cyber centers; and other federal, state and local authorities. NCPS consists of the hardware, software, supporting processes, training, and services in direct support of the Department's mission requirements delineated in the Comprehensive National Cybersecurity Initiative (CNCI) and mandated in National Security Presidential Directives 54 (NSPD-54) / Homeland Security Presidential Directive 23 (HSPD-23). NCPS provides a wide range of cybersecurity capabilities for the ".gov" domain: intrusion detection, intrusion prevention, advanced cyber analytics, information sharing, and core infrastructure using classified and unclassified information.

In FY 2009, EINSTEIN 2 began deployment. EINSTEIN 2 meticulously collects network flow traffic to and from participating federal executive departments' and agencies' networks, and provides an intrusion detection capability that alerts when a pre-defined specific cyber threat is detected. In FY 2014, EINSTEN 3 Accelerated (E3A) began deployment. E3A acts on suspected malicious e-mail and domain name server traffic – preventing harm to agencies' protected networks. EINSTEIN 2 and the E3A network intrusion detection capability use a set of custom signatures derived from numerous sources. When a signature alerts on a known or suspected cyber threat, E3A will act on that threat to stop malicious traffic and prevent harm to the intended targets. This PPA supports both EINSTEIN 2 and E3A.

National Cybersecurity Protection System – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**177**	**127**	**$385,879**
FY 2018 President's Budget	**177**	**152**	**$341,103**
FY 2019 Base Budget	**177**	**152**	**$341,103**
Transfer to PC&I from O&S for National Cybersecurity Protection System (NCPS)	-	-	($68,000)
Total Transfers	**-**	**-**	**($68,000)**
Annualization of 2018 Pay Raise	-	-	$140
Total, Pricing Increases	**-**	**-**	**$140**
Annualization of 2018 Program Changes	-	-	($433)
FTE Rightsizing	-	(13)	($2,336)
Total, Pricing Decreases	**-**	**(13)**	**($2,769)**
Total Adjustments-to-Base	**-**	**(13)**	**($70,629)**
FY 2019 Current Services	**177**	**139**	**$270,474**
Build-out of Pensacola Facility Increase	-	-	$6,000
NCPS Operational Support Activities Increase	-	-	$20,203
Total, Program Increases	**-**	**-**	**$26,203**
FY 2019 Request	**177**	**139**	**$296,677**
FY 2018 TO FY 2019 Change	**-**	**(13)**	**($44,426)**

National Cybersecurity Protection System – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
National Cybersecurity Protection System	177	127	$24,480	$192.76	177	152	$29,538	$194.33	177	139	$27,341	$196.7	-	(13)	($2,197)	$2.37
Total	**177**	**127**	**$24,480**	**$192.76**	**177**	**152**	**$29,538**	**$194.33**	**177**	**139**	**$27,341**	**$196.7**	**-**	**(13)**	**($2,197)**	**$2.37**
Discretionary - Appropriation	177	127	$24,480	$192.76	177	152	$29,538	$194.33	177	139	$27,341	$196.7	-	(13)	($2,197)	$2.37

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$16,524	$20,167	$19,295	($872)
11.3 Other than Full-Time Permanent	$199	$298	$222	($76)
11.5 Other Personnel Compensation	$229	$229	$256	$27
12.1 Civilian Personnel Benefits	$7,528	$8,844	$7,568	($1,276)
Total - Personnel Compensation and Benefits	**$24,480**	**$29,538**	**$27,341**	**($2,197)**
Positions and FTE				
Positions - Civilian	177	177	177	-
FTE - Civilian	127	152	139	(13)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	127	$24,480	$192.76	152	$29,538	$194.33	139	$27,341	$196.70	(13)	($2,197)	$2.37
Total Pay Cost Drivers	**127**	**$24,480**	**$192.76**	**152**	**$29,538**	**$194.33**	**139**	**$27,341**	**$196.70**	**(13)**	**($2,197)**	**$2.37**

National Cybersecurity Protection System – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
National Cybersecurity Protection System	$361,399	$311,565	$269,336	($42,229)
Total	**$361,399**	**$311,565**	**$269,336**	**($42,229)**
Discretionary - Appropriation	$361,399	$311,565	$269,336	($42,229)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$177	$184	$159	($25)
22.0 Transportation of Things	$70	$13	$11	($2)
23.1 Rental Payments to GSA	$2,613	$4,142	$3,581	($561)
23.2 Rental Payments to Others	-	$330	$285	($45)
23.3 Communications, Utilities, and Misc. Charges	$11	$1	$1	-
24.0 Printing and Reproduction	$24	-	-	-
25.1 Advisory and Assistance Services	$278,477	$232,886	$201,321	($31,565)
25.2 Other Services from Non-Federal Sources	$229	$5,621	$4,859	($762)
25.3 Other Goods and Services from Federal Sources	$36,650	$30,664	$26,508	($4,156)
25.4 Operation and Maintenance of Facilities	$1,284	$1,988	$1,719	($269)
25.5 Research and Development Contracts	-	$512	$443	($69)
25.7 Operation and Maintenance of Equipment	$11,005	$18,199	$15,732	($2,467)
25.8 Subsistence & Support of Persons	-	$22	$19	($3)
26.0 Supplies and Materials	$52	-	-	-
31.0 Equipment	$30,715	$11,454	$9,902	($1,552)
32.0 Land and Structures	$92	$5,371	$4,643	($728)
42.0 Insurance Claims and Indemnities	-	$178	$153	($25)
Total - Non Pay Object Classes	**$361,399**	**$311,565**	**$269,336**	**($42,229)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Intrusion Detection and Prevention	$138,221	$133,085	$118,085	($15,000)
Analytics	$53,175	$37,151	$32,151	($5,000)
Program, Planning and Operations	$33,899	$42,016	$36,237	($5,779)
Core Infrastructure	$58,688	$46,203	$35,765	($10,438)
Information Sharing	$24,918	$18,861	$13,849	($5,012)
Other Costs	$52,498	$34,249	$33,249	($1,000)
Total – Non Pay Cost Drivers	**$361,399**	**$311,565**	**$269,336**	**($42,229)**

NON PAY NARRATIVE

Intrusion Detection and Prevention: Deploys additional intrusion prevention capabilities via the internet service providers (ISP), such as web content filtering. The deployment of these additional capabilities (ISP or non-ISP provided) will close gaps from detection to prevention, allowing automated, streaming analytics to find new, previously unknown threats. This also funds EINSTEIN 2 expansion, funds the maintenance of sensors at Nests versus Trusted Internet Connection (TIC)/ Managed Trusted Internet Protocol Services (MTIPS), and increases sensor diversity to expand beyond signature-based sensors, including sensors that alert off of network traffic characteristics and machine behavior. The FY 2019 request reflects a decrease in Intrusion Prevention system enhancements and traffic aggregation efforts funded in the O&S account. The decrease also reflects the realignment of NCPS program funding from O&S to PC&I.

Analytics: Sustains the Security Incident and Event Management (SIEM), Advanced Malware Analysis Center (AMAC), and Enhanced Analytics capabilities, including: generation and configuration efforts for aggregating, correlating, and visualizing network flow information across the federal infrastructure; cyber threat collection, reporting, and analysis; increased Mission Operating Environment (MOE) capacity to support the predicted user base expansion from delivery of NCPS InfoShare capabilities; support for the deployment of Next Generation MOE capabilities designed in FY 2015; collection, correlation, and exchange of up-to-date malware data and analysis; and support for packet capture tools. The FY 2019 request includes a decrease in the deployment of analytics system enhancements from FY 2018, which were funded in the O&S account. The decrease reflects the realignment of NCPS program funding from O&S to PC&I.

Program, Planning and Operations: FY 2019 reflects a decrease in program artifacts and planning, and program and engineering support. The decrease reflects the realignment of NCPS program funding from O&S to PC&I.

Core Infrastructure: Sustains Mission Operating Environment (MOE) and Top Secret MOE. The FY 2019 request reflects decreased funding for MOE hardware and installation costs funded in the O&S account. The decrease reflects the realignment of NCPS program funding from O&S to PC&I.

Information Sharing: Deploys advanced tools and technologies expanding the cybersecurity community's access to DHS threat information and analysis; and continuing integration processes across multiple security fabrics (Cross Domain Solution). The FY 2019 request decreases funds for Information Sharing efforts funded in the O&S account. As Information Sharing capabilities mature, transition to operations costs decrease. The decrease reflects the realignment of NCPS program funding from O&S to PC&I.

Other Costs: FY 2019 request reflects the Working Capital Fund, shared services, and travel.

Infrastructure Protection - PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastucture Capacity Building	360	291	$116,735	374	318	$115,515	397	327	$129,182	23	9	$13,667
Infrastructure Security Compliance	307	232	$69,557	307	255	$72,440	307	248	$76,853	-	(7)	$4,413
Total	**667**	**523**	**$186,292**	**681**	**573**	**$187,955**	**704**	**575**	**$206,035**	**23**	**2**	**$18,080**
Subtotal Discretionary - Appropriation	667	523	$186,292	681	573	$187,955	704	575	$206,035	23	2	$18,080

The Infrastructure Protection PPA in the Operations & Support appropriation funds the coordinated national effort to implement the National Infrastructure Protection Plan (NIPP) and manage risks to our Nation's critical infrastructure. The vast majority of our Nation's critical infrastructure is owned and operated by the private sector, and the programs funded via this PPA are based on building partnerships, planning for preparedness, and sharing information and tools to ensure the availability, security, and resilience of the Nation's critical infrastructure. The PPA conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners and operators and state, local, tribal, and territorial partners understand and address risks to critical infrastructure.

Additionally, Infrastructure Protection provides information on emerging threats and hazards, and offers tools and training to partners to help them manage risks to critical infrastructure. Included in this PPA is NPPD's chemical regulatory program, which focuses on securing high-risk chemicals against terrorist attack and misuse.

Infrastructure Protection – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$186,292**	**$187,955**	**$206,035**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$186,292**	**$187,955**	**$206,035**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$186,292**	**$187,955**	**$206,035**
Obligations (Actual/Projections/Estimates)	$184,344	$187,955	$206,035
Personnel: Positions and FTE			
Enacted/Request Positions	667	681	704
Enacted/Request FTE	523	573	575
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	624	681	704
FTE (Actual/Estimates/Projections)	499	573	575

Infrastructure Protection - PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**667**	**523**	**$186,292**
FY 2018 President's Budget	**681**	**573**	**$187,955**
FY 2019 Base Budget	**681**	**573**	**$187,955**
Transfer Non-facility Regionalization	-	-	$3,888
Transfer to PC&I from O&S for Infrastructure Info and Sensitive Data Protection	-	-	($2,320)
Total Transfers	**-**	**-**	**$1,568**
Annualization of 2018 Pay Raise	-	-	$419
Annualization of 2018 Program Changes	-	-	$1,355
Total, Pricing Increases	**-**	**-**	**$1,774**
FTE Rightsizing	-	(10)	($1,863)
Total, Pricing Decreases	**-**	**(10)**	**($1,863)**
Total Adjustments-to-Base	**-**	**(10)**	**$1,479**
FY 2019 Current Services	**681**	**563**	**$189,434**
CFATS Operations Increase	-	-	$5,321
Soft Target Program Management Office Increase	23	12	$11,780
Total, Program Increases	**23**	**12**	**$17,101**
IDR Program Reduction Decrease	-	-	($500)
Total, Program Decreases	**-**	**-**	**($500)**
FY 2019 Request	**704**	**575**	**$206,035**
FY 2018 TO FY 2019 Change	**23**	**2**	**$18,080**

Infrastructure Protection – PPA
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Capacity Building	360	291	$48,126	$165.38	374	318	$49,971	$157.14	397	327	$53,005	$162.09	23	9	$3,034	$4.95
Infrastructure Security Compliance	307	232	$33,333	$143.68	307	255	$38,297	$150.18	307	248	$37,164	$149.85	-	(7)	($1,133)	($0.33)
Total	**667**	**523**	**$81,459**	**$155.75**	**681**	**573**	**$88,268**	**$154.05**	**704**	**575**	**$90,169**	**$156.82**	**23**	**2**	**$1,901**	**$2.77**
Discretionary - Appropriation	667	523	$81,459	$155.75	681	573	$88,268	$154.05	704	575	$90,169	$156.82	23	2	$1,901	$2.77

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$61,094	$65,386	$67,366	$1,980
11.3 Other than Full-Time Permanent	$1,221	$1,274	$1,369	$95
11.5 Other Personnel Compensation	$2,036	$2,124	$2,280	$156
12.1 Civilian Personnel Benefits	$17,108	$19,484	$19,154	($330)
Total - Personnel Compensation and Benefits	**$81,459**	**$88,268**	**$90,169**	**$1,901**
Positions and FTE				
Positions - Civilian	667	681	704	23
FTE - Civilian	523	573	575	2

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	523	$81,459	$155.75	573	$88,268	154.05	575	$90,169	$156.82	2	$1,901	$2.77
Total – Pay Cost Drivers	**523**	**$81,459**	**$155.75**	**573**	**$88,268**	**154.05**	**575**	**$90,169**	**$156.82**	**2**	**$1,901**	**$2.77**

NARRATIVE EXPLANATION OF CHANGES

- $0.4M increase for the annualization of the 1.9 percent pay raise in 2018.
- $1.4M increase to annualize the non-personnel enhancements included in the FY 2018 President's Budget.
- $1.9M and 10 FTE decrease for rightsizing of personnel based on actual current hiring projections and historical execution.
- $2.5M in salaries and benefits and 12 FTE increase for the Soft Target Program Management Office increase.

FTE Change FY 2018-2019: 2
PCB Change FY 2018-2019: $1,901
Average Cost Change FY 2018-2019: $2.77

Infrastructure Protection – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastucture Capacity Building	$68,609	$65,544	$76,177	$10,633
Infrastructure Security Compliance	$36,224	$34,143	$39,689	$5,546
Total	**$104,833**	**$99,687**	**$115,866**	**$16,179**
Discretionary - Appropriation	$104,833	$99,687	$115,866	$16,179

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$5,162	$4,381	$6,462	$2,081
22.0 Transportation of Things	$3,194	$47	$3,194	$3,147
23.1 Rental Payments to GSA	$316	$37	$265	$228
23.2 Rental Payments to Others	$58	$1,223	-	($1,223)
23.3 Communications, Utilities, and Misc. Charges	-	$84	-	($84)
24.0 Printing and Reproduction	$152	$66	$166	$100
25.1 Advisory and Assistance Services	$34,978	$30,971	$49,408	$18,437
25.2 Other Services from Non-Federal Sources	$490	$5,687	$489	($5,198)
25.3 Other Goods and Services from Federal Sources	$48,488	$38,201	$43,789	$5,588
25.4 Operation and Maintenance of Facilities	$521	$677	$521	($156)
25.5 Research and Development Contracts	-	$4,028	-	($4,028)
25.6 Medical Care	-	$4,084	-	($4,084)
25.7 Operation and Maintenance of Equipment	$10,576	$9,795	$10,675	$880
26.0 Supplies and Materials	$122	$140	$146	$6
31.0 Equipment	$719	$266	$700	$434
32.0 Land and Structures	$23	-	$23	$23
42.0 Insurance Claims and Indemnities	$34	-	$28	$28
Total - Non Pay Object Classes	**$104,833**	**$99,687**	**$115,866**	**$16,179**

Infrastructure Capacity Building – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Sector Risk Management	138	120	$42,396	141	121	$44,491	164	133	$55,859	23	12	$11,368
Protective Security Advisors	138	108	$39,723	148	122	$35,677	148	119	$39,114	-	(3)	$3,437
Bombing Prevention	20	17	$15,070	20	19	$14,739	20	19	$14,752	-	-	$13
Infrastructure Information and Sensitive Data Protection	64	46	$19,546	65	56	$20,608	65	56	$19,457	-	-	($1,151)
Total	**360**	**291**	**$116,735**	**374**	**318**	**$115,515**	**397**	**327**	**$129,182**	**23**	**9**	**$13,667**
Subtotal Discretionary - Appropriation	360	291	$116,735	374	318	$115,515	397	327	$129,182	23	9	$13,667

The Infrastructure Capacity Building PPA in the Operations & Support appropriation increasing the security and resilience of facilities, systems, networks, and surrounding communities to cyber, physical, and human risks through partnership efforts. To this end, NPPD provides analysis, expertise, and other technical assistance to critical infrastructure owners and operators. NPPD also facilitates access to, and the exchange of, information and intelligence necessary to strengthen the security and resilience of critical infrastructure. NPPD additionally oversees a nationwide framework to guide infrastructure security and resilience efforts. In FY 2019, NPPD will continue to improve the delivery of services in the field by integrating physical and cyber threat mitigation actions, providing unity of effort for stakeholders, and eliminating redundancy of business support to allow for increased depth and breadth of services for customers. This PPA will also fund the support activities necessary to enable these efforts.

The Infrastructure Capacity Building PPA supports nine budget projects: National Infrastructure Protection Plan (NIPP) Management, Infrastructure Security Committee - Compliance and Standards (ISC-CS), Critical Infrastructure (CI) Partnerships, Protective Security Advisors, Vulnerability Assessments, Bombing Prevention, TRIPwire, Critical Infrastructure Technology & Architecture, and IP Gateway.

Infrastructure Capacity Building – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**360**	**291**	**$116,735**
FY 2018 President's Budget	**374**	**318**	**$115,515**
FY 2019 Base Budget	**374**	**318**	**$115,515**
Transfer Non-facility Regionalization	-	-	$3,888
Transfer to PC&I from O&S for Infrastructure Info and Sensitive Data Protection	-	-	($2,320)
Total Transfers	**-**	**-**	**$1,568**
Annualization of 2018 Pay Raise	-	-	$237
Annualization of 2018 Program Changes	-	-	$1,130
Total, Pricing Increases	**-**	**-**	**$1,367**
FTE Rightsizing	-	(3)	($548)
Total, Pricing Decreases	**-**	**(3)**	**($548)**
Total Adjustments-to-Base	**-**	**(3)**	**$2,387**
FY 2019 Current Services	**374**	**315**	**$117,902**
Soft Target Program Management Office Increase	23	12	$11,780
Total, Program Increases	**23**	**12**	**$11,780**
IDR Program Reduction Decrease	-	-	($500)
Total, Program Decreases	**-**	**-**	**($500)**
FY 2019 Request	**397**	**327**	**$129,182**
FY 2018 TO FY 2019 Change	**23**	**9**	**$13,667**

Infrastructure Capacity Building PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization (Dollars in Thousands)	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Sector Risk Management	138	120	$19,160	$159.67	141	121	$18,553	$153.33	164	133	$21,512	$161.74	23	12	$2,959	$8.41
Protective Security Advisors	138	108	$18,979	$175.73	148	122	$20,446	$167.59	148	119	$20,469	$172.01	-	(3)	$23	$4.42
Bombing Prevention	20	17	$2,984	$175.53	20	19	$2,662	$140.11	20	19	$2,675	$140.79	-	-	$13	$0.68
Infrastructure Information and Sensitive Data Protection	64	46	$7,003	$152.24	65	56	$8,310	$148.39	65	56	$8,349	$149.09	-	-	$39	$0.7
Total	**360**	**291**	**$48,126**	**$165.38**	**374**	**318**	**$49,971**	**$157.14**	**397**	**327**	**$53,005**	**$162.09**	**23**	**9**	**$3,034**	**$4.95**
Discretionary - Appropriation	360	291	$48,126	$165.38	374	318	$49,971	$157.14	397	327	$53,005	$162.09	23	9	$3,034	$4.95

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$36,094	$37,449	$39,636	$2,187
11.3 Other than Full-Time Permanent	$721	$698	$803	$105
11.5 Other Personnel Compensation	$1,203	$1,164	$1,337	$173
12.1 Civilian Personnel Benefits	$10,108	$10,660	$11,229	$569
Total - Personnel Compensation and Benefits	**$48,126**	**$49,971**	**$53,005**	**$3,034**
Positions and FTE				
Positions - Civilian	360	374	397	23
FTE - Civilian	291	318	327	9

Infrastructure Capacity Building – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Sector Risk Management	$23,236	$25,938	$34,347	$8,409
Protective Security Advisors	$20,744	$15,231	$18,645	$3,414
Bombing Prevention	$12,086	$12,077	$12,077	-
Infrastructure Information and Sensitive Data Protection	$12,543	$12,298	$11,108	($1,190)
Total	**$68,609**	**$65,544**	**$76,177**	**$10,633**
Discretionary - Appropriation	$68,609	$65,544	$76,177	$10,633

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$2,422	$2,342	$3,722	$1,380
22.0 Transportation of Things	$3,172	$38	$3,172	$3,134
23.1 Rental Payments to GSA	$205	$37	$265	$228
23.2 Rental Payments to Others	-	$884	-	($884)
23.3 Communications, Utilities, and Misc. Charges	-	$84	-	($84)
24.0 Printing and Reproduction	$137	$46	$151	$105
25.1 Advisory and Assistance Services	$25,292	$15,315	$36,595	$21,280
25.2 Other Services from Non-Federal Sources	$325	$5,360	$324	($5,036)
25.3 Other Goods and Services from Federal Sources	$27,771	$24,869	$22,466	($2,403)
25.4 Operation and Maintenance of Facilities	$521	$677	$521	($156)
25.5 Research and Development Contracts	-	$4,028	-	($4,028)
25.6 Medical Care	-	$4,084	-	($4,084)
25.7 Operation and Maintenance of Equipment	$8,434	$7,471	$8,534	$1,063
26.0 Supplies and Materials	$39	$80	$63	($17)
31.0 Equipment	$262	$229	$341	$112
32.0 Land and Structures	$23	-	$23	$23
42.0 Insurance Claims and Indemnities	$6	-	-	-
Total - Non Pay Object Classes	**$68,609**	**$65,544**	**$76,177**	**$10,633**

Sector Risk Management – PPA Level III

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Sector Risk Management	138	120	$42,396	141	121	$44,491	164	133	$55,859	23	12	$11,368
Total	**138**	**120**	**$42,396**	**141**	**121**	**$44,491**	**164**	**133**	**$55,859**	**23**	**12**	**$11,368**
Subtotal Discretionary - Appropriation	138	120	$42,396	141	121	$44,491	164	133	$55,859	23	12	$11,368

The Sector Risk Management PPA in the Operations & Support appropriation funds increasing the security and resilience of facilities, systems, networks, and surrounding communities to cyber, physical, and human risks through partnership efforts. To this end, NPPD provides analysis, expertise, and other technical assistance to critical infrastructure owners and operators. NPPD also facilitates access to, and exchange of, information and intelligence necessary to strengthen the security and resilience of critical infrastructure, including a nationwide framework to guide infrastructure security and resilience efforts. In FY 2019, this PPA will continue to provide for the monitoring and researching of emerging risks, critical infrastructure vulnerabilities, and strategic trends to identify areas where National Implementation Protection Plan (NIPP)-coordinating structures can increase the overall security and resilience of the Nation by focusing efforts on the strategic environment. In addition, funds will contribute to strategic initiatives to mitigate risks to position, navigation, and timing technologies. Funds will also provide for continued implementation of the Interagency Security Committee (ISC) compliance authorities to support the adoption of security standards by federal facilities. Through the partnership model articulated in the NIPP, NPPD manages formal partnership structures that provide a vital network through which the critical infrastructure community can access and share information and request technical expertise and assistance to enable owners and operators to make sound investment decisions that mitigate cyber and physical risk. The partnership networks also contribute to an overall understanding of national risk to infrastructure, thereby supporting national preparedness planning.

The Sector Risk Management PPA supports three projects: NIPP Management, Infrastructure Security Committee - Compliance and Standards (ISC-CS), and Critical Infrastructure (CI) Partnerships

Sector Risk Management – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**138**	**120**	**$42,396**
FY 2018 President's Budget	**141**	**121**	**$44,491**
FY 2019 Base Budget	**141**	**121**	**$44,491**
Annualization of 2018 Pay Raise	-	-	$88
Total, Pricing Increases	**-**	**-**	**$88**
Total Adjustments-to-Base	**-**	**-**	**$88**
FY 2019 Current Services	**141**	**121**	**$44,579**
Soft Target Program Management Office Increase	23	12	$11,780
Total, Program Increases	**23**	**12**	**$11,780**
IDR Program Reduction Decrease	-	-	($500)
Total, Program Decreases	**-**	**-**	**($500)**
FY 2019 Request	**164**	**133**	**$55,859**
FY 2018 TO FY 2019 Change	**23**	**12**	**$11,368**

Sector Risk Management – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Sector Risk Management	138	120	$19,160	$159.67	141	121	$18,553	$153.33	164	133	$21,512	$161.74	23	12	$2,959	$8.41
Total	**138**	**120**	**$19,160**	**$159.67**	**141**	**121**	**$18,553**	**$153.33**	**164**	**133**	**$21,512**	**$161.74**	**23**	**12**	**$2,959**	**$8.41**
Discretionary - Appropriation	138	120	$19,160	$159.67	141	121	$18,553	$153.33	164	133	$21,512	$161.74	23	12	$2,959	$8.41

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$14,370	$14,418	$16,134	$1,716
11.3 Other than Full-Time Permanent	$287	$232	$323	$91
11.5 Other Personnel Compensation	$479	$384	$538	$154
12.1 Civilian Personnel Benefits	$4,024	$3,519	$4,517	$998
Total - Personnel Compensation and Benefits	**$19,160**	**$18,553**	**$21,512**	**$2,959**
Positions and FTE				
Positions - Civilian	138	141	164	23
FTE - Civilian	120	121	133	12

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	120	$19,160	$159.67	121	$18,553	$153.33	133	$21,512	$161.74	12	$2,959	$8.41
Total – Pay Cost Drivers	**120**	**$19,160**	**$159.67**	**121**	**$18,553**	**$153.33**	**133**	**$21,512**	**$161.74**	**12**	**$2,959**	**$8.41**

Sector Risk Management – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Sector Risk Management	$23,236	$25,938	$34,347	$8,409
Total	**$23,236**	**$25,938**	**$34,347**	**$8,409**
Discretionary - Appropriation	$23,236	$25,938	$34,347	$8,409

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$566	$628	$866	$238
22.0 Transportation of Things	$3,150	$25	$3,150	$3,125
24.0 Printing and Reproduction	$4	$26	$18	($8)
25.1 Advisory and Assistance Services	$9,282	$9,053	$19,709	$10,656
25.2 Other Services from Non-Federal Sources	$157	$4,712	$157	($4,555)
25.3 Other Goods and Services from Federal Sources	$2,500	$3,915	$2,852	($1,063)
25.5 Research and Development Contracts	-	$3,452	-	($3,452)
25.6 Medical Care	-	$4,084	-	($4,084)
25.7 Operation and Maintenance of Equipment	$7,533	-	$7,533	$7,533
26.0 Supplies and Materials	$22	$32	$46	$14
31.0 Equipment	$16	$11	$16	$5
42.0 Insurance Claims and Indemnities	$6	-	-	-
Total - Non Pay Object Classes	**$23,236**	**$25,938**	**$34,347**	**$8,409**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
NIPP Management	$5,975	$7,759	$7,790	$31
Critical Infrastructure Partnerships	$13,733	$13,988	$22,521	$8,533
Other Costs	$3,528	$4,191	$4,036	($151)
Total – Non Pay Cost Drivers	**$23,236**	**$25,938**	**$34,347**	**$8,409**

NON PAY NARRATIVE

NIPP Management: Increase due to inflation cost.

Critical Infrastructure (CI) Partnerships: Increase which reflects the Soft Target Program Management Office increase, Infrastructure Design and Recovery (ID&R) reduction, and adjustment of funding to salaries and benefits in FY 2019.

Other Costs: Reduction due to a decrease in planned Working Capital Funds in FY 2019.

Protective Security Advisors – PPA Level III

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Protective Security Advisors	138	108	$39,723	148	122	$35,677	148	119	$39,114	-	(3)	$3,437
Total	**138**	**108**	**$39,723**	**148**	**122**	**$35,677**	**148**	**119**	**$39,114**	**-**	**(3)**	**$3,437**
Subtotal Discretionary - Appropriation	138	108	$39,723	148	122	$35,677	148	119	$39,114	-	(3)	$3,437

The Protective Security Advisors (PSA) PPA in the Operations & Support appropriation provides proactive engagement with state, local, tribal, and territorial government mission partners and the private sector to protect the Nation's critical infrastructure. The PSAs and regional staff are located across the United States in the localities where critical infrastructure is built, operated, and maintained. They serve as onsite critical infrastructure and vulnerability assessment specialists for the Department, while providing a local perspective to the national risk picture by identifying, assessing, monitoring, and minimizing the risk to critical infrastructure at the state, local, and regional levels. Regional staff support planning and operational efforts, and tailor the delivery of services directly to stakeholders in communities. The PSAs conduct security surveys and assessments; perform contingency and incident-specific outreach activities; provide support to National Security Special Events (NSSEs) and Special Event Assessment Rating (SEAR) events; provide incident response; and coordinate and facilitate training. These assessments and outreach activities provide infrastructure owners and operators, in both the private and public sectors, with risk, vulnerability, and mitigation information that can inform and support investment and corrective actions to make infrastructure more secure and resilient.

The PSA PPA supports two budget projects: Protective Security Advisors (PSA) and Vulnerability Assessments (specifically, the non-assessment activities associated with Vulnerability Assessments). The PSA project, specifically the number of PSAs for the three budget years, is reflected in the Figure below.

Figure 7: PSA ($K and FTP)

Protective Security Advisors (PSA)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
# of PSA FTP	125	125	125
PSA Funding* ($000)	$33,442	$30,658	$34,095

*Funding depicted in the Figure above is only funding related to PSAs. It does not include PSA Assessment funding nor Vulnerability Assessment's non-assessment funding.

Protective Security Advisors – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**138**	**108**	**$39,723**
FY 2018 President's Budget	**148**	**122**	**$35,677**
FY 2019 Base Budget	**148**	**122**	**$35,677**
Transfer Non-facility Regionalization	-	-	$3,888
Total Transfers	**-**	**-**	**$3,888**
Annualization of 2018 Pay Raise	-	-	$97
Total, Pricing Increases	**-**	**-**	**$97**
FTE Rightsizing	-	(3)	($548)
Total, Pricing Decreases	**-**	**(3)**	**($548)**
Total Adjustments-to-Base	**-**	**(3)**	**$3,437**
FY 2019 Current Services	**148**	**119**	**$39,114**
FY 2019 Request	**148**	**119**	**$39,114**
FY 2018 TO FY 2019 Change	**-**	**(3)**	**$3,437**

Protective Security Advisors – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Protective Security Advisors	138	108	$18,979	$175.73	148	122	$20,446	$167.59	148	119	$20,469	$172.01	-	(3)	$23	$4.42
Total	**138**	**108**	**$18,979**	**$175.73**	**148**	**122**	**$20,446**	**$167.59**	**148**	**119**	**$20,469**	**$172.01**	**-**	**(3)**	**$23**	**$4.42**
Discretionary - Appropriation	138	108	$18,979	$175.73	148	122	$20,446	$167.59	148	119	$20,469	$172.01	-	(3)	$23	$4.42

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$14,234	$15,026	$15,275	$249
11.3 Other than Full-Time Permanent	$285	$301	$312	$11
11.5 Other Personnel Compensation	$474	$502	$519	$17
12.1 Civilian Personnel Benefits	$3,986	$4,617	$4,363	($254)
Total - Personnel Compensation and Benefits	**$18,979**	**$20,446**	**$20,469**	**$23**
Positions and FTE				
Positions - Civilian	138	148	148	-
FTE - Civilian	108	122	119	(3)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	108	$18,979	$175.73	122	$20,446	$167.59	119	$20,469	$172.01	(3)	$23	$4.42
Total Pay Cost Drivers	**108**	**$18,979**	**$175.73**	**122**	**$20,446**	**$167.59**	**119**	**$20,469**	**$172.01**	**(3)**	**$23**	**$4.42**

Protective Security Advisors – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Protective Security Advisors	$20,744	$15,231	$18,645	$3,414
Total	**$20,744**	**$15,231**	**$18,645**	**$3,414**
Discretionary - Appropriation	$20,744	$15,231	$18,645	$3,414

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$1,475	$1,225	$2,475	$1,250
22.0 Transportation of Things	$15	$12	$15	$3
23.1 Rental Payments to GSA	$205	-	$265	$265
23.2 Rental Payments to Others	-	$5	-	($5)
24.0 Printing and Reproduction	$67	$20	$67	$47
25.1 Advisory and Assistance Services	$4,634	$3,179	$4,880	$1,701
25.2 Other Services from Non-Federal Sources	$119	$106	$119	$13
25.3 Other Goods and Services from Federal Sources	$13,084	$10,195	$9,500	($695)
25.7 Operation and Maintenance of Equipment	$901	$336	$1,001	$665
26.0 Supplies and Materials	-	$37	-	($37)
31.0 Equipment	$221	$116	$300	$184
32.0 Land and Structures	$23	-	$23	$23
Total - Non Pay Object Classes	**$20,744**	**$15,231**	**$18,645**	**$3,414**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Protective Security Advisors	$10,982	$7,023	$9,406	$2,383
Vulnerability Assessments	$3,428	$4,168	$4,185	$17
Other Costs	$6,334	$4,040	$5,054	$1,014
Total – Non Pay Cost Drivers	**$20,744**	**$15,231**	**$18,645**	**$3,414**

NARRATIVE EXPLANATION OF CHANGES

Protective Security Advisors: Increase due to transfer of Non-Facility Regionalization funds of $3.9M from Mission Support PPA.

Vulnerability Assessments: Increase due to inflation cost.

Other Costs: Increase due to increased travel costs in FY 2019.

Bombing Prevention – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Bombing Prevention	20	17	$15,070	20	19	$14,739	20	19	$14,752	-	-	$13
Total	**20**	**17**	**$15,070**	**20**	**19**	**$14,739**	**20**	**19**	**$14,752**	**-**	**-**	**$13**
Subtotal Discretionary - Appropriation	20	17	$15,070	20	19	$14,739	20	19	$14,752	-	-	$13

The Bombing Prevention PPA in the Operations & Support appropriation supports the Department's efforts to implement the National Policy for Countering Improvised Explosive Devices (National Counter-IED policy) and enhance the Nation's ability to prevent, protect against, respond to, and mitigate the use of explosives against critical infrastructure; the private sector; and federal, state, local, tribal, and territorial entities.

The Bombing Prevention PPA also supports TRIPwire, which is an online, secure, collaborative, information-sharing network for bomb squad, law enforcement, and other emergency services personnel. This network is utilized to learn about current terrorist improvised explosive device (IED) tactics, techniques, and procedures, including design and emplacement considerations. The system combines expert analyses and reports with relevant documents, images, and videos gathered and translated directly from extremist websites and other terrorist sources, to assist law enforcement to anticipate, identify, and prevent IED incidents.

The two budget projects supported by the Bombing Prevention PPA are Bombing Prevention and TRIPwire.

Figure 8: Office of Bombing Prevention Initiatives ($K)

Initiative Area	Sub-Projects & Acquisitions	FY2017 ($000)	FY2018 ($000)	FY2019 ($000)
Bombing Prevention 1: Coordination of National and Intergovernmental Bombing Prevention Efforts	Policy, Plans, and Analysis Support	$1,035	$1,061	$1,061
Bombing Prevention 2: Counter-IED Capability Analysis and Planning Support	Program Planning, Analysis, and Outreach	$637	$702	$702
	National Counter-IED Capabilities Analysis Database (NCCAD)	$1,155	$1,545	$1,355
	Multi-Jurisdiction IED Security Planning (MJIEDSP)	$702	$709	$709
Bombing Prevention 3: Information Sharing and Decision Support	Program Planning, Analysis, and Outreach	$637	$702	$702
	TRIP*wire* Operations and Maintenance	$1,706	$1,666	$1,666
	TRIP*wire* Modernization	$1,000	$252	-
	TRIP*wire* Open Source Intelligence/Content	$2,082	$2,145	$2,145
Bombing Prevention 4: Counter-IED Training and Awareness	Program Planning, Analysis, and Outreach	$637	$702	$702
	OBP IED Awareness Training at CDP	$319	$284	$536
	Curriculum Development and VILT Connectivity	$17	$17	$17
	Bomb-Making Materials Awareness Program (BMAP)	-	$218	$408
	C-IED Printed Material	$84	$100	$100
Miscellaneous	Travel, Professional Development, P-Card, etc.	$239	$264	$264
	Bombing Prevention Total	**$10,250**	**$10,366**	**$10,366**

NOTE: Funding data depicted in the Figure does not include salaries and benefits or Working Capital Fund payments.

Bombing Prevention – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**20**	**17**	**$15,070**
FY 2018 President's Budget	**20**	**19**	**$14,739**
FY 2019 Base Budget	**20**	**19**	**$14,739**
Annualization of 2018 Pay Raise	-	-	$13
Total, Pricing Increases	**-**	**-**	**$13**
Total Adjustments-to-Base	**-**	**-**	**$13**
FY 2019 Current Services	**20**	**19**	**$14,752**
FY 2019 Request	**20**	**19**	**$14,752**
FY 2018 TO FY 2019 Change	**-**	**-**	**$13**

Bombing Prevention – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Bombing Prevention	20	17	$2,984	$175.53	20	19	$2,662	$140.11	20	19	$2,675	$140.79	-	-	$13	$0.68
Total	**20**	**17**	**$2,984**	**$175.53**	**20**	**19**	**$2,662**	**$140.11**	**20**	**19**	**$2,675**	**$140.79**	**-**	**-**	**$13**	**$0.68**
Discretionary - Appropriation	20	17	$2,984	$175.53	20	19	$2,662	$140.11	20	19	$2,675	$140.79	-	-	$13	$0.68

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$2,238	$1,943	$1,996	$53
11.3 Other than Full-Time Permanent	$44	$40	$41	$1
11.5 Other Personnel Compensation	$75	$66	$68	$2
12.1 Civilian Personnel Benefits	$627	$613	$570	($43)
Total - Personnel Compensation and Benefits	**$2,984**	**$2,662**	**$2,675**	**$13**
Positions and FTE				
Positions - Civilian	20	20	20	-
FTE - Civilian	17	19	19	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	17	$2,984	$175.53	19	$2,662	$140.11	19	$2,675	$140.79	-	$13	$0.68
Total – Pay Cost Drivers	**17**	**$2,984**	**$175.53**	**19**	**$2,662**	**$140.11**	**19**	**$2,675**	**$140.79**	**-**	**$13**	**$0.68**

Bombing Prevention – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Bombing Prevention	$12,086	$12,077	$12,077	-
Total	**$12,086**	**$12,077**	**$12,077**	**-**
Discretionary - Appropriation	$12,086	$12,077	$12,077	-

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$290	$419	$290	($129)
22.0 Transportation of Things	$5	$1	$5	$4
23.1 Rental Payments to GSA	-	$37	-	($37)
23.2 Rental Payments to Others	-	$879	-	($879)
23.3 Communications, Utilities, and Misc. Charges	-	$84	-	($84)
24.0 Printing and Reproduction	$66	-	$66	$66
25.1 Advisory and Assistance Services	$10,158	$2,574	$10,149	$7,575
25.2 Other Services from Non-Federal Sources	$19	$523	$18	($505)
25.3 Other Goods and Services from Federal Sources	$1,538	$3,643	$1,539	($2,104)
25.4 Operation and Maintenance of Facilities	-	$677	-	($677)
25.5 Research and Development Contracts	-	$576	-	($576)
25.7 Operation and Maintenance of Equipment	-	$2,601	-	($2,601)
26.0 Supplies and Materials	$5	$5	$5	-
31.0 Equipment	$5	$58	$5	($53)
Total - Non Pay Object Classes	**$12,086**	**$12,077**	**$12,077**	**-**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Bombing Prevention	$8,250	$8,123	$8,156	$33
TRIPwire	$1,710	$1,953	$1,960	$7
Other Costs	$2,126	$2,001	$1,961	($40)
Total – Non Pay Cost Drivers	**$12,086**	**$12,077**	**$12,077**	**-**

NON PAY NARRATIVE

Bombing Prevention: Increase due to inflation cost.

TRIPwire: Increase due to inflation cost.

Other Costs: Decrease due to decrease in planned Working Capital Funds in FY 2019.

Infrastructure Information and Sensitive Data Protection – PPA Level III

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Information and Sensitive Data Protection	64	46	$19,546	65	56	$20,608	65	56	$19,457	-	-	($1,151)
Total	**64**	**46**	**$19,546**	**65**	**56**	**$20,608**	**65**	**56**	**$19,457**	**-**	**-**	**($1,151)**
Subtotal Discretionary - Appropriation	64	46	$19,546	65	56	$20,608	65	56	$19,457	-	-	($1,151)

The Infrastructure Information and Sensitive Data Protection PPA in the Operations & Support appropriation funds efforts that provide federal, state, and local governments, and private sector stakeholders with innovative IT solutions. These solutions efficiently gather, manage, share, and protect near-real-time situational awareness and physical and cyber risk data for critical physical and cyber infrastructure. The PPA also manages the Infrastructure Protection (IP) Gateway, which is NPPD's voluntary IT system, which ensures that there is a single, centrally-managed repository that enables the collection, visualization, storage, retrieval, search, and manipulation of critical infrastructure information.

The Infrastructure Information & Sensitive Data Protection PPA supports two budget projects: Critical Infrastructure Technology & Architecture and the IP Gateway. In FY 2019, NPPD will continue to operate and maintain the IP Gateway suite of capabilities while pursuing enhancements to improve functionality, usability, and performance. In addition, NPPD intends to release an updated Protected Critical Infrastructure Information (PCII) Final Rule after adjudicating comments received during the Public Comment period in FY 2016; this will be the first update to the PCII Final Rule since originally implementing the Critical Infrastructure Information Act of 2002. Investing in the migration of the IP Gateway suite of capabilities and the necessary updates to the PCII Final Rule will ensure that NPPD possesses the appropriate tools, resources, policies and procedures to enhance information security and execute key information sharing missions with the critical infrastructure community.

Infrastructure Information and Sensitive Data Protection – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**64**	**46**	**$19,546**
FY 2018 President's Budget	**65**	**56**	**$20,608**
FY 2019 Base Budget	**65**	**56**	**$20,608**
Transfer to PC&I from O&S for Infrastructure Info and Sensitive Data Protection	-	-	($2,320)
Total Transfers	**-**	**-**	**($2,320)**
Annualization of 2018 Pay Raise	-	-	$39
Annualization of 2018 Program Changes	-	-	$1,130
Total, Pricing Increases	**-**	**-**	**$1,169**
Total Adjustments-to-Base	**-**	**-**	**($1,151)**
FY 2019 Current Services	**65**	**56**	**$19,457**
FY 2019 Request	**65**	**56**	**$19,457**
FY 2018 TO FY 2019 Change	**-**	**-**	**($1,151)**

Infrastructure Information and Sensitive Data Protection – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Information and Sensitive Data Protection	64	46	$7,003	$152.24	65	56	$8,310	$148.39	65	56	$8,349	$149.09	-	-	$39	$0.7
Total	**64**	**46**	**$7,003**	**$152.24**	**65**	**56**	**$8,310**	**$148.39**	**65**	**56**	**$8,349**	**$149.09**	**-**	**-**	**$39**	**$0.7**
Discretionary - Appropriation	64	46	$7,003	$152.24	65	56	$8,310	$148.39	65	56	$8,349	$149.09	-	-	$39	$0.7

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$5,252	$6,062	$6,231	$169
11.3 Other than Full-Time Permanent	$105	$125	$127	$2
11.5 Other Personnel Compensation	$175	$212	$212	-
12.1 Civilian Personnel Benefits	$1,471	$1,911	$1,779	($132)
Total - Personnel Compensation and Benefits	**$7,003**	**$8,310**	**$8,349**	**$39**
Positions and FTE				
Positions - Civilian	64	65	65	-
FTE - Civilian	46	56	56	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	46	$7,003	$152.24	56	$8,310	$148.39	56	$8,349	$149.09	-	$39	$0.70
Total – Pay Cost Drivers	**46**	**$7,003**	**$152.24**	**56**	**$8,310**	**$148.39**	**56**	**$8,349**	**$149.09**	**-**	**$39**	**$0.70**

Infrastructure Information and Sensitive Data Protection – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Information and Sensitive Data Protection	$12,543	$12,298	$11,108	($1,190)
Total	**$12,543**	**$12,298**	**$11,108**	**($1,190)**
Discretionary - Appropriation	$12,543	$12,298	$11,108	($1,190)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$91	$70	$91	$21
22.0 Transportation of Things	$2	-	$2	$2
25.1 Advisory and Assistance Services	$1,218	$509	$1,857	$1,348
25.2 Other Services from Non-Federal Sources	$30	$19	$30	$11
25.3 Other Goods and Services from Federal Sources	$10,649	$7,116	$8,575	$1,459
25.4 Operation and Maintenance of Facilities	$521	-	$521	$521
25.7 Operation and Maintenance of Equipment	-	$4,534	-	($4,534)
26.0 Supplies and Materials	$12	$6	$12	$6
31.0 Equipment	$20	$44	$20	($24)
Total - Non Pay Object Classes	**$12,543**	**$12,298**	**$11,108**	**($1,190)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Protection Gateway	$9,433	$8,719	$7,407	($1,312)
Infrastructure Information & Sensitive Data Protection	$894	$1,746	$1,753	$7
Other Costs	$2,216	$1,833	$1,948	$115
Total – Non Pay Cost Drivers	**$12,543**	**$12,298**	**$11,108**	**($1,190)**

NON PAY NARRATIVE

Infrastructure Protection Gateway: Decrease due to the realignment of O&S funding to PC&I.

Infrastructure Information & Sensitive Data Protection: Increase due to inflation cost.

Other Costs: Increase due to planned Working Capital Funds escalation in FY 2019.

Infrastructure Security Compliance– PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Security Compliance	307	232	$69,557	307	255	$72,440	307	248	$76,853	-	(7)	$4,413
Total	**307**	**232**	**$69,557**	**307**	**255**	**$72,440**	**307**	**248**	**$76,853**	**-**	**(7)**	**$4,413**
Subtotal Discretionary - Appropriation	307	232	$69,557	307	255	$72,440	307	248	$76,853	-	(7)	$4,413

The Infrastructure Security Compliance PPA in the Operations & Support appropriation funds the securing of the Nation's high-risk chemical facilities through the systematic regulation, inspection, and enforcement under the authority of the Chemical Facility Anti-Terrorism Standards (CFATS). In support of CFATS and explosive precursor security, NPPD provides funding for regulatory mission support, regulation compliance determination, field operations support, and technical engineering for facilities data collection and analysis tools, including the Chemical Security Assessment Tool (CSAT) suite. Improving operations and support processes through IT investments in CSAT will ensure that NPPD remains responsive to changing legislative and regulatory requirements while effectively managing regulatory compliance of chemical facilities, which is necessary to support NPPD's priority of securing high-risk chemical facilities from terrorist attacks.

The two budget projects supported by the Infrastructure Security Compliance PPA are Infrastructure Security Compliance and CSAT Investment.

Infrastructure Security Compliance – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**307**	**232**	**$69,557**
FY 2018 President's Budget	**307**	**255**	**$72,440**
FY 2019 Base Budget	**307**	**255**	**$72,440**
Annualization of 2018 Pay Raise	-	-	$182
Annualization of 2018 Program Changes	-	-	$225
Total, Pricing Increases	**-**	**-**	**$407**
FTE Rightsizing	-	(7)	($1,315)
Total, Pricing Decreases	**-**	**(7)**	**($1,315)**
Total Adjustments-to-Base	**-**	**(7)**	**($908)**
FY 2019 Current Services	**307**	**248**	**$71,532**
CFATS Operations Increase	-	-	$5,321
Total, Program Increases	**-**	**-**	**$5,321**
FY 2019 Request	**307**	**248**	**$76,853**
FY 2018 TO FY 2019 Change	**-**	**(7)**	**$4,413**

Infrastructure Security Compliance-PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Security Compliance	307	232	$33,333	$143.68	307	255	$38,297	$150.18	307	248	$37,164	$149.85	-	(7)	($1,133)	($0.33)
Total	**307**	**232**	**$33,333**	**$143.68**	**307**	**255**	**$38,297**	**$150.18**	**307**	**248**	**$37,164**	**$149.85**	**-**	**(7)**	**($1,133)**	**($0.33)**
Discretionary - Appropriation	307	232	$33,333	$143.68	307	255	$38,297	$150.18	307	248	$37,164	$149.85	-	(7)	($1,133)	($0.33)

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$25,000	$27,937	$27,730	($207)
11.3 Other than Full-Time Permanent	$500	$576	$566	($10)
11.5 Other Personnel Compensation	$833	$960	$943	($17)
12.1 Civilian Personnel Benefits	$7,000	$8,824	$7,925	($899)
Total - Personnel Compensation and Benefits	**$33,333**	**$38,297**	**$37,164**	**($1,133)**
Positions and FTE				
Positions - Civilian	307	307	307	-
FTE - Civilian	232	255	248	(7)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	232	$33,333	$143.68	255	$38,297	$150.18	248	$37,164	$149.85	(7)	($1,133)	($0.33)
Total Pay Cost Drivers	**232**	**$33,333**	**$143.68**	**255**	**$38,297**	**$150.18**	**248**	**$37,164**	**$149.85**	**(7)**	**($1,133)**	**($0.33)**

Infrastructure Security Compliance - PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Security Compliance	$36,224	$34,143	$39,689	$5,546
Total	**$36,224**	**$34,143**	**$39,689**	**$5,546**
Discretionary - Appropriation	$36,224	$34,143	$39,689	$5,546

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$2,740	$2,039	$2,740	$701
22.0 Transportation of Things	$22	$9	$22	$13
23.1 Rental Payments to GSA	$111	-	-	-
23.2 Rental Payments to Others	$58	$339	-	($339)
24.0 Printing and Reproduction	$15	$20	$15	($5)
25.1 Advisory and Assistance Services	$9,686	$15,656	$12,813	($2,843)
25.2 Other Services from Non-Federal Sources	$165	$327	$165	($162)
25.3 Other Goods and Services from Federal Sources	$20,717	$13,332	$21,323	$7,991
25.7 Operation and Maintenance of Equipment	$2,142	$2,324	$2,141	($183)
26.0 Supplies and Materials	$83	$60	$83	$23
31.0 Equipment	$457	$37	$359	$322
42.0 Insurance Claims and Indemnities	$28	-	$28	$28
Total - Non Pay Object Classes	**$36,224**	**$34,143**	**$39,689**	**$5,546**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Chemical Security Assessment Tool	$14,587	$12,835	$12,885	$50
Infrastructure Security Compliance	$13,409	$13,731	$16,877	$3,146
Other Costs	$8,228	$7,577	$9,927	$2,350
Total – Non Pay Cost Drivers	**$36,224**	**$34,143**	**$39,689**	**$5,546**

NON PAY NARRARIVE

Chemical Security Assessment Tool:** Increase due to inflation cost.

Infrastructure Security Compliance: Increase reflects the increase requested for the CFATS program and annualization of 2018 non-personnel enhancements.

Other Costs: This increase reflects the increase requested for the CFATS program and planned Working Capital Fund escalation in FY 2019.

Emergency Communications –PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Emergency Communications Preparedness	96	71	$44,097	107	82	$49,966	107	87	$51,785	-	5	$1,819
Priority Telecommunications Services	30	26	$57,944	30	26	$63,955	30	26	$63,911	-	-	($44)
Total	**126**	**97**	**$102,041**	**137**	**108**	**$113,921**	**137**	**113**	**$115,696**	**-**	**5**	**$1,775**
Subtotal Discretionary - Appropriation	126	97	$102,041	137	108	$113,921	137	113	$115,696	-	5	$1,775

The Emergency Communications PPA in the Operations & Support appropriation is responsible for advancing the Nation's interoperable emergency communications capabilities to enable first responders and government officials to continue to communicate in the event of disasters. The Emergency Communications program ensures that Public Safety communications systems seamlessly pass information when and where needed to achieve interoperability during an incident through technical assistance and grant guidance. It also engages with state, local, and tribal stakeholders to deliver targeted technical assistance and gather stakeholder input on policies, guidance, and initiatives.

Additionally, Emergency Communications drives federal emergency communications efficiencies through strategic planning, aligning grants, developing common investment and infrastructure planning approaches, representing federal users on national-level policy and standards issues, and coordinating between domestic and international stakeholders along the borders.

Emergency Communications – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$102,041**	**$113,921**	**$115,696**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$102,041**	**$113,921**	**$115,696**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$102,041**	**$113,921**	**$115,696**
Obligations (Actual/Projections/Estimates)	$101,948	$113,921	$115,696
Personnel: Positions and FTE			
Enacted/Request Positions	126	137	137
Enacted/Request FTE	97	108	113
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	126	137	137
FTE (Actual/Estimates/Projections)	103	108	113

Emergency Communications – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**126**	**97**	**$102,041**
FY 2018 President's Budget	**137**	**108**	**$113,921**
FY 2019 Base Budget	**137**	**108**	**$113,921**
Annualization of 2018 Pay Raise	-	-	$86
Annualization of 2018 Personnel Changes	-	5	$848
Annualization of 2018 Program Changes	-	-	$841
Total, Pricing Increases	**-**	**5**	**$1,775**
Total Adjustments-to-Base	**-**	**5**	**$1,775**
FY 2019 Current Services	**137**	**113**	**$115,696**
FY 2019 Request	**137**	**113**	**$115,696**
FY 2018 TO FY 2019 Change	**-**	**5**	**$1,775**

Emergency Communications – PPA
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Emergency Communications Preparedness	96	71	$12,421	$174.94	107	82	$13,685	$166.89	107	87	$14,598	$167.79	-	5	$913	$0.9
Priority Telecommunications Services	30	26	$4,900	$188.46	30	26	$4,449	$171.12	30	26	$4,469	$171.88	-	-	$20	$0.76
Total	**126**	**97**	**$17,321**	**$178.57**	**137**	**108**	**$18,134**	**$167.91**	**137**	**113**	**$19,067**	**$168.73**	**-**	**5**	**$933**	**$0.82**
Discretionary - Appropriation	126	97	$17,321	$178.57	137	108	$18,134	$167.91	137	113	$19,067	$168.73	-	5	$933	$0.82

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$13,152	$13,526	$14,418	$892
11.3 Other than Full-Time Permanent	$122	$202	$145	($57)
11.5 Other Personnel Compensation	$197	$177	$218	$41
12.1 Civilian Personnel Benefits	$3,850	$4,229	$4,286	$57
Total - Personnel Compensation and Benefits	**$17,321**	**$18,134**	**$19,067**	**$933**
Positions and FTE				
Positions - Civilian	126	137	137	-
FTE - Civilian	97	108	113	5

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	97	$17,321	$178.57	108	$18,134	$167.91	113	$19,067	$168.73	5	$933	$0.82
Total – Pay Cost Drivers	**97**	**$17,321**	**$178.57**	**108**	**$18,134**	**$167.91**	**113**	**$19,067**	**$168.73**	**5**	**$933**	**$0.82**

NARRATIVE EXPLANATION OF CHANGES

- $0.1M increase is for the annualization of the pay raise in 2018.
- $0.8M and 5 FTE increase to annualize personnel changes included in the FY 2018 President's Budget Request.

FTE Change FY 2018-2019: 5
PCB Change FY 2018-2019: $933
Average Cost Change FY 2018-2019: $0.82

Emergency Communications – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Emergency Communications Preparedness	$31,676	$36,281	$37,187	$906
Priority Telecommunications Services	$53,044	$59,506	$59,442	($64)
Total	**$84,720**	**$95,787**	**$96,629**	**$842**
Discretionary - Appropriation	$84,720	$95,787	$96,629	$842

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$1,305	$1,094	$1,576	$482
22.0 Transportation of Things	$55	$3	$55	$52
23.1 Rental Payments to GSA	$630	$553	$1,509	$956
23.2 Rental Payments to Others	-	-	$985	$985
23.3 Communications, Utilities, and Misc. Charges	$112	$77	$112	$35
24.0 Printing and Reproduction	-	$23	-	($23)
25.1 Advisory and Assistance Services	$35,621	$40,962	$39,261	($1,701)
25.2 Other Services from Non-Federal Sources	$357	$212	$383	$171
25.3 Other Goods and Services from Federal Sources	$41,036	$45,506	$45,210	($296)
25.4 Operation and Maintenance of Facilities	$1,377	$50	$1,439	$1,389
25.7 Operation and Maintenance of Equipment	$2,069	$4,823	$3,909	($914)
26.0 Supplies and Materials	$42	$29	$74	$45
31.0 Equipment	$2,116	$185	$2,116	$1,931
41.0 Grants, Subsidies, and Contributions	-	$2,270	-	($2,270)
Total - Non Pay Object Classes	**$84,720**	**$95,787**	**$96,629**	**$842**

Emergency Communication Preparedness PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Emergency Communications Preparedness	96	71	$44,097	107	82	$49,966	107	87	$51,785	-	5	$1,819
Total	**96**	**71**	**$44,097**	**107**	**82**	**$49,966**	**107**	**87**	**$51,785**	**-**	**5**	**$1,819**
Subtotal Discretionary - Appropriation	96	71	$44,097	107	82	$49,966	107	87	$51,785	-	5	$1,819

The Emergency Communication Preparedness PPA in the Operations & Support appropriation provides technical assistance to state, regional, local, and tribal government officials to support and promote the ability of emergency response providers and relevant government officials to continue to communicate in the event of natural disasters, acts of terrorism, and other man-made disasters, as required by statute. The Emergency Communications program ensures that Public Safety communications systems seamlessly pass information when and where needed to achieve interoperability during an incident through technical assistance and grant guidance. It also engages with state, local, and tribal stakeholders to deliver targeted technical assistance and gather stakeholder input on policies, guidance, and initiatives. Additionally, it drives emergency communications efficiencies through the development of effective governance, strategic planning, alignment of grants, and development of common investment and infrastructure planning approaches.

Furthermore, Emergency Communication Preparedness promotes seamless emergency communications for users at all levels of government, including the coordination of domestic and international emergency communications stakeholders, to improve interoperable emergency communications with a collaborative national approach, common policy, and standards.

Emergency Communication Preparedness - PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**96**	**71**	**$44,097**
FY 2018 President's Budget	**107**	**82**	**$49,966**
FY 2019 Base Budget	**107**	**82**	**$49,966**
Annualization of 2018 Pay Raise	-	-	$65
Annualization of 2018 Personnel Changes	-	5	$848
Annualization of 2018 Program Changes	-	-	$906
Total, Pricing Increases	**-**	**5**	**$1,819**
Total Adjustments-to-Base	**-**	**5**	**$1,819**
FY 2019 Current Services	**107**	**87**	**$51,785**
FY 2019 Request	**107**	**87**	**$51,785**
FY 2018 TO FY 2019 Change	**-**	**5**	**$1,819**

Emergency Communication Preparedness – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Emergency Communications Preparedness	96	71	$12,421	$174.94	107	82	$13,685	$166.89	107	87	$14,598	$167.79	-	5	$913	$0.9
Total	**96**	**71**	**$12,421**	**$174.94**	**107**	**82**	**$13,685**	**$166.89**	**107**	**87**	**$14,598**	**$167.79**	**-**	**5**	**$913**	**$0.9**
Discretionary - Appropriation	96	71	$12,421	$174.94	107	82	$13,685	$166.89	107	87	$14,598	$167.79	-	5	$913	$0.9

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$9,363	$10,228	$10,962	$734
11.3 Other than Full-Time Permanent	$122	$152	$145	($7)
11.5 Other Personnel Compensation	$141	$107	$167	$60
12.1 Civilian Personnel Benefits	$2,795	$3,198	$3,324	$126
Total - Personnel Compensation and Benefits	**$12,421**	**$13,685**	**$14,598**	**$913**
Positions and FTE				
Positions - Civilian	96	107	107	-
FTE - Civilian	71	82	87	5

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	71	$12,421	$174.94	82	$13,685	$166.89	87	$14,598	$167.79	5	$913	$0.90
Total – Pay Cost Drivers	**71**	**$12,421**	**$174.94**	**82**	**$13,685**	**$166.89**	**87**	**$14,598**	**$167.79**	**5**	**$913**	**$0.90**

Emergency Communication Preparedness – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Emergency Communications Preparedness	$31,676	$36,281	$37,187	$906
Total	**$31,676**	**$36,281**	**$37,187**	**$906**
Discretionary - Appropriation	$31,676	$36,281	$37,187	$906

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$1,241	$966	$1,512	$546
22.0 Transportation of Things	$15	$3	$15	$12
23.1 Rental Payments to GSA	$343	$348	$343	($5)
23.3 Communications, Utilities, and Misc. Charges	$75	$77	$75	($2)
24.0 Printing and Reproduction	-	$23	-	($23)
25.1 Advisory and Assistance Services	$15,428	$13,732	$16,336	$2,604
25.2 Other Services from Non-Federal Sources	$83	$92	$83	($9)
25.3 Other Goods and Services from Federal Sources	$12,621	$17,035	$16,953	($82)
25.4 Operation and Maintenance of Facilities	$360	-	$360	$360
25.7 Operation and Maintenance of Equipment	$1,323	$1,544	$1,323	($221)
26.0 Supplies and Materials	$10	$20	$10	($10)
31.0 Equipment	$177	$171	$177	$6
41.0 Grants, Subsidies, and Contributions	-	$2,270	-	($2,270)
Total - Non Pay Object Classes	**$31,676**	**$36,281**	**$37,187**	**$906**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
National Emergency Communications Plan Implementation	$27,095	$30,921	$31,807	$886
Other Costs	$4,581	$5,360	$5,380	$20
Total – Non Pay Cost Drivers	**$31,676**	**$36,281**	**$37,187**	**$906**

NON PAY NARRATIVE

National Emergency Communications Plan Implementation: FY 2019 request includes additional funding for contractor services and stakeholder support.

Other Costs: FY 2019 request reflects funding for Working Capital Fund, shared services, and travel.

Priority Telecommunications Services – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
GETS/WPS/SRAS/TSP	17	16	$55,730	17	15	$56,319	17	15	$56,293	-	-	($26)
Next Generation Networks Priority Services	13	10	$2,214	13	11	$7,636	13	11	$7,618	-	-	($18)
Total	**30**	**26**	**$57,944**	**30**	**26**	**$63,955**	**30**	**26**	**$63,911**	**-**	**-**	**($44)**
Subtotal Discretionary - Appropriation	30	26	$57,944	30	26	$63,955	30	26	$63,911	-	-	($44)

The Priority Telecommunications Services (PTS) PPA in the Operations & Support appropriation leverages the Nation's telecommunications networks, enabling priority access voice communications for response and recovery coordination efforts and maintaining essential government functions and operations during an emergency. PTS accomplishes this by maintaining priority services that provide national security and emergency preparedness voice telecommunications for all levels of government and industry organizations during times when networks are congested or degraded. The PPA also ensures that new network infrastructures are capable of satisfying priority telecommunications requirements as carriers evolve to next-generation networks. PTS is a service acquisition for which the Government provides oversight of the operational program. The investment is a White House-directed, national-level National Security/Emergency Preparedness Telecommunications Program (NLP) that leverages the commercially-owned Public Switched Network (PSN). The PSN is enhanced with specially-designed features to enhance the ability for national security/emergency preparedness users to communicate during a crisis/emergency through a degraded PSN using three PTS components: Government Emergency Telecommunications Service (GETS), Wireless Priority Service (WPS), and Special Routing Arrangement Service (SRAS).

Priority Telecommunications Services – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**30**	**26**	**$57,944**
FY 2018 President's Budget	**30**	**26**	**$63,955**
FY 2019 Base Budget	**30**	**26**	**$63,955**
Annualization of 2018 Pay Raise	-	-	$21
Total, Pricing Increases	**-**	**-**	**$21**
Annualization of 2018 Program Changes	-	-	($65)
Total, Pricing Decreases	**-**	**-**	**($65)**
Total Adjustments-to-Base	**-**	**-**	**($44)**
FY 2019 Current Services	**30**	**26**	**$63,911**
FY 2019 Request	**30**	**26**	**$63,911**
FY 2018 TO FY 2019 Change	**-**	**-**	**($44)**

Priority Telecommunications Services – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
GETS/WPS/SRAS/TSP	17	16	$2,829	$176.81	17	15	$2,592	$172.8	17	15	$2,604	$173.6	-	-	$12	$0.8
Next Generation Networks Priority Services	13	10	$2,071	$207.1	13	11	$1,857	$168.82	13	11	$1,865	$169.55	-	-	$8	$0.73
Total	**30**	**26**	**$4,900**	**$188.46**	**30**	**26**	**$4,449**	**$171.12**	**30**	**26**	**$4,469**	**$171.88**	**-**	**-**	**$20**	**$0.76**
Discretionary - Appropriation	30	26	$4,900	$188.46	30	26	$4,449	$171.12	30	26	$4,469	$171.88	-	-	$20	$0.76

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$3,789	$3,298	$3,456	$158
11.3 Other than Full-Time Permanent	-	$50	-	($50)
11.5 Other Personnel Compensation	$56	$70	$51	($19)
12.1 Civilian Personnel Benefits	$1,055	$1,031	$962	($69)
Total - Personnel Compensation and Benefits	**$4,900**	**$4,449**	**$4,469**	**$20**
Positions and FTE				
Positions - Civilian	30	30	30	-
FTE - Civilian	26	26	26	-

Priority Telecommunications Services – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
GETS/WPS/SRAS/TSP	$52,901	$53,727	$53,689	($38)
Next Generation Networks Priority Services	$143	$5,779	$5,753	($26)
Total	**$53,044**	**$59,506**	**$59,442**	**($64)**
Discretionary - Appropriation	$53,044	$59,506	$59,442	($64)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$64	$128	$64	($64)
22.0 Transportation of Things	$40	-	$40	$40
23.1 Rental Payments to GSA	$287	$205	$1,166	$961
23.2 Rental Payments to Others	-	-	$985	$985
23.3 Communications, Utilities, and Misc. Charges	$37	-	$37	$37
25.1 Advisory and Assistance Services	$20,193	$27,230	$22,925	($4,305)
25.2 Other Services from Non-Federal Sources	$274	$120	$300	$180
25.3 Other Goods and Services from Federal Sources	$28,415	$28,471	$28,257	($214)
25.4 Operation and Maintenance of Facilities	$1,017	$50	$1,079	$1,029
25.7 Operation and Maintenance of Equipment	$746	$3,279	$2,586	($693)
26.0 Supplies and Materials	$32	$9	$64	$55
31.0 Equipment	$1,939	$14	$1,939	$1,925
Total - Non Pay Object Classes	**$53,044**	**$59,506**	**$59,442**	**($64)**

.

GETS/WPS/SRAS/TSP – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
GETS/WPS/SRAS/TSP	17	16	$55,730	17	15	$56,319	17	15	$56,293	-	-	($26)
Total	**17**	**16**	**$55,730**	**17**	**15**	**$56,319**	**17**	**15**	**$56,293**	**-**	**-**	**($26)**
Subtotal Discretionary - Appropriation	17	16	$55,730	17	15	$56,319	17	15	$56,293	-	-	($26)

The Government Emergency Telecommunications Service/Wireless Priority Service/Special Routing Arrangement Service/Telecommunications Service Priority (GETS/WPS/SRAS/TSP) PPA in the Operations & Support appropriation funds national communication capabilities used by public safety, national security, and emergency preparedness personnel to communicate in the event of natural disasters, acts of terrorism, or other man-made disasters. The PPA supports a nationwide landline telephone service, which enables priority communications for the leadership of federal, state, local, tribal and territorial governments, and industry organizations. It provides priority voice calling via the existing public switched network, and provides national security and emergency preparedness users with priority restoration and provisioning of telecommunications services which are vital to maintaining readiness and/or responding to an incident. This PPA also supports the provision of the highest level of priority telecommunications service during times of severe public switched network congestion or disruption.

GETS/WPS/SRAS/TSP – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**17**	**16**	**$55,730**
FY 2018 President's Budget	**17**	**15**	**$56,319**
FY 2019 Base Budget	**17**	**15**	**$56,319**
Annualization of 2018 Pay Raise	-	-	$12
Total, Pricing Increases	**-**	**-**	**$12**
Annualization of 2018 Program Changes	-	-	($38)
Total, Pricing Decreases	**-**	**-**	**($38)**
Total Adjustments-to-Base	**-**	**-**	**($26)**
FY 2019 Current Services	**17**	**15**	**$56,293**
FY 2019 Request	**17**	**15**	**$56,293**
FY 2018 TO FY 2019 Change	**-**	**-**	**($26)**

GETS/WPS/SRAS/TSP – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
GETS/WPS/SRAS/TSP	17	16	$2,829	$176.81	17	15	$2,592	$172.8	17	15	$2,604	$173.6	-	-	$12	$0.8
Total	**17**	**16**	**$2,829**	**$176.81**	**17**	**15**	**$2,592**	**$172.8**	**17**	**15**	**$2,604**	**$173.6**	**-**	**-**	**$12**	**$0.8**
Discretionary - Appropriation	17	16	$2,829	$176.81	17	15	$2,592	$172.8	17	15	$2,604	$173.6	-	-	$12	$0.8

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$2,212	$1,946	$2,036	$90
11.3 Other than Full-Time Permanent	-	$22	-	($22)
11.5 Other Personnel Compensation	$27	$19	$25	$6
12.1 Civilian Personnel Benefits	$590	$605	$543	($62)
Total - Personnel Compensation and Benefits	**$2,829**	**$2,592**	**$2,604**	**$12**
Positions and FTE				
Positions - Civilian	17	17	17	-
FTE - Civilian	16	15	15	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	16	$2,829	$176.81	15	$2,592	$172.80	15	$2,604	$173.60	-	$12	$0.80
Total – Pay Cost Drivers	**16**	**$2,829**	**$176.81**	**15**	**$2,592**	**$172.80**	**15**	**$2,604**	**$173.60**	**-**	**$12**	**$0.80**

GETS/WPS/SRAS/TSP – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
GETS/WPS/SRAS/TSP	$52,901	$53,727	$53,689	($38)
Total	**$52,901**	**$53,727**	**$53,689**	**($38)**
Discretionary - Appropriation	$52,901	$53,727	$53,689	($38)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$52	$66	$52	($14)
22.0 Transportation of Things	$37	-	$37	$37
23.1 Rental Payments to GSA	$287	$205	$287	$82
23.3 Communications, Utilities, and Misc. Charges	$37	-	$37	$37
25.1 Advisory and Assistance Services	$20,193	$22,752	$21,139	($1,613)
25.2 Other Services from Non-Federal Sources	$274	$113	$274	$161
25.3 Other Goods and Services from Federal Sources	$28,287	$27,587	$28,129	$542
25.4 Operation and Maintenance of Facilities	$1,017	$50	$1,017	$967
25.7 Operation and Maintenance of Equipment	$746	$2,951	$746	($2,205)
26.0 Supplies and Materials	$32	-	$32	$32
31.0 Equipment	$1,939	$3	$1,939	$1,936
Total - Non Pay Object Classes	**$52,901**	**$53,727**	**$53,689**	**($38)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Priority Access	$44,021	$45,516	$45,294	($222)
Priority Restoration	$2,219	$2,456	$2,456	$0
Other Costs	$6,661	$5,755	$5,939	$184
Total – Non Pay Cost Drivers	**$52,901**	**$53,727**	**$53,689**	**($38)**

NON PAY NARRATIVE

Priority Access: FY 2019 request reflects a decrease in contractor support services.

Priority Restoration: No change between FY 2018 and FY 2019.

Other Costs: FY 2019 request reflects the Working Capital Fund, shared services, and travel.

Next Generation Networks Priority Services – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Next Generation Networks Priority Services	13	10	$2,214	13	11	$7,636	13	11	$7,618	-	-	($18)
Total	**13**	**10**	**$2,214**	**13**	**11**	**$7,636**	**13**	**11**	**$7,618**	**-**	**-**	**($18)**
Subtotal Discretionary - Appropriation	13	10	$2,214	13	11	$7,636	13	11	$7,618	-	-	($18)

The Next Generation Network - Priority Services (NGN-PS) PPA in the Operations & Support appropriation responds to Executive Order 13618, which directs the Secretary of DHS to oversee the development, testing, implementation, and sustainment of national security/emergency preparedness communications, including: communications that support the continuity of federal, state, local, territorial, and tribal government emergency preparedness and response communications. Service providers are replacing their aging circuit-switched networks with packet-switched networks, creating an operational gap which is being met via NGN-PS. NGN-PS will address the capability gap by providing highly-survivable commercial telecommunications assets to provide the Government with priority communications capabilities over robust and diverse nationwide networks at a fraction of the cost required to build a Government-owned system. NGN-PS is a multi-phase/multi-increment technology effort.

Next Generation Networks Priority Services – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**13**	**10**	**$2,214**
FY 2018 President's Budget	**13**	**11**	**$7,636**
FY 2019 Base Budget	**13**	**11**	**$7,636**
Annualization of 2018 Pay Raise	-	-	$9
Total, Pricing Increases	**-**	**-**	**$9**
Annualization of 2018 Program Changes	-	-	($27)
Total, Pricing Decreases	**-**	**-**	**($27)**
Total Adjustments-to-Base	**-**	**-**	**($18)**
FY 2019 Current Services	**13**	**11**	**$7,618**
FY 2019 Request	**13**	**11**	**$7,618**
FY 2018 TO FY 2019 Change	**-**	**-**	**($18)**

Next Generation Networks Priority Services – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Next Generation Networks Priority Services	13	10	$2,071	$207.1	13	11	$1,857	$168.82	13	11	$1,865	$169.55	-	-	$8	$0.73
Total	**13**	**10**	**$2,071**	**$207.1**	**13**	**11**	**$1,857**	**$168.82**	**13**	**11**	**$1,865**	**$169.55**	**-**	**-**	**$8**	**$0.73**
Discretionary - Appropriation	13	10	$2,071	$207.1	13	11	$1,857	$168.82	13	11	$1,865	$169.55	-	-	$8	$0.73

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$1,577	$1,352	$1,420	$68
11.3 Other than Full-Time Permanent	-	$28	-	($28)
11.5 Other Personnel Compensation	$29	$51	$26	($25)
12.1 Civilian Personnel Benefits	$465	$426	$419	($7)
Total - Personnel Compensation and Benefits	**$2,071**	**$1,857**	**$1,865**	**$8**
Positions and FTE				
Positions - Civilian	13	13	13	-
FTE - Civilian	10	11	11	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	10	$2,071	$207.1	11	$1,857	$168.82	11	$1,865	$169.55	-	$8	$0.73
Total – Pay Cost Drivers	**10**	**$2,071**	**$207.1**	**11**	**$1,857**	**$168.82**	**11**	**$1,865**	**$169.55**	**-**	**$8**	**$0.73**

Next Generation Networks Priority Services – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Next Generation Networks Priority Services	$143	$5,779	$5,753	($26)
Total	**$143**	**$5,779**	**$5,753**	**($26)**
Discretionary - Appropriation	$143	$5,779	$5,753	($26)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$12	$62	$12	($50)
22.0 Transportation of Things	$3	-	$3	$3
23.1 Rental Payments to GSA	-	-	$879	$879
23.2 Rental Payments to Others	-	-	$985	$985
25.1 Advisory and Assistance Services	-	$4,478	$1,786	($2,692)
25.2 Other Services from Non-Federal Sources	-	$7	$26	$19
25.3 Other Goods and Services from Federal Sources	$128	$884	$128	($756)
25.4 Operation and Maintenance of Facilities	-	-	$62	$62
25.7 Operation and Maintenance of Equipment	-	$328	$1,840	$1,512
26.0 Supplies and Materials	-	$9	$32	$23
31.0 Equipment	-	$11	-	($11)
Total - Non Pay Object Classes	**$143**	**$5,779**	**$5,753**	**($26)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Priority Deployment	$143	$5,779	$5,753	($26)
Total – Non Pay Cost Drivers	**$143**	**$5,779**	**$5,753**	**($26)**

NON PAY NARRATIVE

Priority Deployment – The FY 2019 decrease reflects the Working Capital Fund, shared services, and travel.

Integrated Operations –PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cyber and Infrastructure Analysis	100	93	$41,880	148	116	$43,322	148	133	$44,683	-	17	$1,361
Critical Infrastructure Situational Awareness	38	32	$16,176	51	41	$21,222	51	44	$23,429	-	3	$2,207
Stakeholder Engagement and Requirements	104	59	$41,959	118	102	$46,904	118	96	$45,127	-	(6)	($1,777)
Strategy, Policy, and Plans	74	54	$9,669	74	63	$14,448	74	63	$13,931	-	-	($517)
Total	**316**	**238**	**$109,684**	**391**	**322**	**$125,896**	**391**	**336**	**$127,170**	**-**	**14**	**$1,274**
Subtotal Discretionary - Appropriation	316	238	$109,684	391	322	$125,896	391	336	$127,170	-	14	$1,274

The Integrated Operations PPA in the Operations & Support appropriation ensures domain awareness through the sustainment of command and control, coordination, information sharing, and situational awareness in support of multiple mission programs. This program includes various organizations that carry out functions such as consequence analysis, decision support and modeling, 24x7 critical infrastructure Watch operations, continuity of operations, stakeholder engagement, external affairs, privacy, policy development and implementation, and strategic planning.

Integrated Operations – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$109,684**	**$125,896**	**$127,170**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$2,101	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$109,684**	**$127,997**	**$127,170**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$109,684**	**$127,997**	**$127,170**
Obligations (Actual/Projections/Estimates)	$103,571	$127,997	$127,170
Personnel: Positions and FTE			
Enacted/Request Positions	316	391	391
Enacted/Request FTE	238	322	336
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	334	391	391
FTE (Actual/Estimates/Projections)	265	322	336

Integrated Operations – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**316**	**238**	**$109,684**
FY 2018 President's Budget	**391**	**322**	**$125,896**
FY 2019 Base Budget	**391**	**322**	**$125,896**
Transfer to O&S from PC&I for Modeling Capability Transition Environment (MCTE)	-	-	$500
Total Transfers	**-**	**-**	**$500**
Annualization of 2018 Pay Raise	-	-	$256
Annualization of 2018 Personnel Changes	-	25	$4,542
Total, Pricing Increases	**-**	**25**	**$4,798**
Annualization of 2018 Program Changes	-	-	($1,974)
FTE Rightsizing	-	(11)	($2,050)
Total, Pricing Decreases	**-**	**(11)**	**($4,024)**
Total Adjustments-to-Base	**-**	**14**	**$1,274**
FY 2019 Current Services	**391**	**336**	**$127,170**
FY 2019 Request	**391**	**336**	**$127,170**
FY 2018 TO FY 2019 Change	**-**	**14**	**$1,274**

Integrated Operations – PPA
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cyber and Infrastructure Analysis	100	93	$14,656	$157.59	148	116	$20,962	$180.71	148	133	$24,186	$181.85	-	17	$3,224	$1.14
Critical Infrastructure Situational Awareness	38	32	$5,436	$169.88	51	41	$7,454	$181.8	51	44	$7,225	$164.2	-	3	($229)	($17.6)
Stakeholder Engagement and Requirements	104	59	$10,264	$173.97	118	102	$15,502	$151.98	118	96	$14,677	$152.89	-	(6)	($825)	$0.91
Strategy, Policy, and Plans	74	54	$7,281	$134.83	74	63	$9,937	$157.73	74	63	$9,983	$158.46	-	-	$46	$0.73
Total	**316**	**238**	**$37,637**	**$158.14**	**391**	**322**	**$53,855**	**$167.25**	**391**	**336**	**$56,071**	**$166.88**	**-**	**14**	**$2,216**	**($0.37)**
Discretionary - Appropriation	316	238	$37,637	$158.14	391	322	$53,855	$167.25	391	336	$56,071	$166.88	-	14	$2,216	($0.37)

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$31,106	$39,225	$41,586	$2,361
11.3 Other than Full-Time Permanent	$1,053	$1,436	$1,353	($83)
11.5 Other Personnel Compensation	$396	$852	$937	$85
12.1 Civilian Personnel Benefits	$5,082	$12,342	$12,195	($147)
Total - Personnel Compensation and Benefits	**$37,637**	**$53,855**	**$56,071**	**$2,216**
Positions and FTE				
Positions - Civilian	316	391	391	-
FTE - Civilian	238	322	336	14

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	238	$37,637	$158.14	322	$53,855	$167.25	336	$56,071	$166.88	14	$2,216	($0.37)
Total – Pay Cost Drivers	**238**	**$37,637**	**$158.14**	**322**	**$53,855**	**$167.25**	**336**	**$56,071**	**$166.88**	**14**	**$2,216**	**($0.37)**

NARRATIVE EXPLANATION OF CHANGES
- $0.3M is for the annualization of the 1.9 percent pay raise in 2018.
- $4.5M and 25 FTE increase to annualize personnel changes included in the FY 2018 Presidents Budget Request.
- $2.1M and 11 FTE decrease for rightsizing of personnel based on actual current hiring projections and historical execution.

FTE Change FY 2018-2019: 14
PCB Change FY 2018-2019: $2,216
Average Cost Change FY 2018-2019: ($0.37)

Integrated Operations – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cyber and Infrastructure Analysis	$27,224	$22,360	$20,497	($1,863)
Critical Infrastructure Situational Awareness	$10,740	$13,768	$16,204	$2,436
Stakeholder Engagement and Requirements	$31,695	$31,402	$30,450	($952)
Strategy, Policy, and Plans	$2,388	$4,511	$3,948	($563)
Total	**$72,047**	**$72,041**	**$71,099**	**($942)**
Discretionary - Appropriation	$72,047	$72,041	$71,099	($942)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$1,295	$5,736	$3,249	($2,487)
22.0 Transportation of Things	$85	$78	$78	-
23.1 Rental Payments to GSA	$1,434	$1,604	$1,604	-
23.2 Rental Payments to Others	$272	$251	$251	-
23.3 Communications, Utilities, and Misc. Charges	$688	$2,885	$2,746	($139)
24.0 Printing and Reproduction	$5	-	$5	$5
25.1 Advisory and Assistance Services	$35,917	$37,754	$36,165	($1,589)
25.2 Other Services from Non-Federal Sources	$809	$753	$858	$105
25.3 Other Goods and Services from Federal Sources	$29,083	$19,843	$23,054	$3,211
25.4 Operation and Maintenance of Facilities	$549	$936	$878	($58)
25.6 Medical Care	$1	-	$1	$1
25.7 Operation and Maintenance of Equipment	$1,685	$1,909	$1,909	-
26.0 Supplies and Materials	$117	$176	$188	$12
31.0 Equipment	$107	$116	$113	($3)
Total - Non Pay Object Classes	**$72,047**	**$72,041**	**$71,099**	**($942)**

Cyber and Infrastructure Analysis - PPA Level II

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

Organization (Dollars in Thousands)	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
National Infrastructure Simulation Analysis Center (NISAC)	-	-	$18,650	-	-	$8,912	-	-	$8,912	-	-	-
Infrastructure Analysis	100	93	$23,230	148	116	$34,410	148	133	$35,771	-	17	$1,361
Total	**100**	**93**	**$41,880**	**148**	**116**	**$43,322**	**148**	**133**	**$44,683**	**-**	**17**	**$1,361**
Subtotal Discretionary - Appropriation	100	93	$41,880	148	116	$43,322	148	133	$44,683	-	17	$1,361

The Cyber and Infrastructure Analysis PPA in the Operations & Support appropriation funds efforts to protect the Nation's critical infrastructure through an integrated analytical approach, which evaluates the potential consequences of disruption from physical or cyber threats and incidents through the Office of Cyber and Infrastructure Analysis (OCIA). This analysis informs decisions to strengthen infrastructure security and resilience. The analysis also informs response and recovery efforts during natural, man-made, and cyber incidents.

Cyber and Infrastructure Analysis – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**100**	**93**	**$41,880**
FY 2018 President's Budget	**148**	**116**	**$43,322**
FY 2019 Base Budget	**148**	**116**	**$43,322**
Transfer to O&S from PC&I for Modeling Capability Transition Environment (MCTE)	-	-	$500
Total Transfers	**-**	**-**	**$500**
Annualization of 2018 Pay Raise	-	-	$100
Annualization of 2018 Personnel Changes	-	17	$3,124
Total, Pricing Increases	**-**	**17**	**$3,224**
Annualization of 2018 Program Changes	-	-	($2,363)
Total, Pricing Decreases	**-**	**-**	**($2,363)**
Total Adjustments-to-Base	**-**	**17**	**$1,361**
FY 2019 Current Services	**148**	**133**	**$44,683**
FY 2019 Request	**148**	**133**	**$44,683**
FY 2018 TO FY 2019 Change	**-**	**17**	**$1,361**

Cyber and Infrastructure Analysis PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Analysis	100	93	$14,656	$157.59	148	116	$20,962	$180.71	148	133	$24,186	$181.85	-	17	$3,224	$1.14
Total	**100**	**93**	**$14,656**	**$157.59**	**148**	**116**	**$20,962**	**$180.71**	**148**	**133**	**$24,186**	**$181.85**	**-**	**17**	**$3,224**	**$1.14**
Discretionary - Appropriation	100	93	$14,656	$157.59	148	116	$20,962	$180.71	148	133	$24,186	$181.85	-	17	$3,224	$1.14

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$14,656	$16,291	$18,927	$2,636
11.3 Other than Full-Time Permanent	-	$262	$295	$33
11.5 Other Personnel Compensation	-	$433	$487	$54
12.1 Civilian Personnel Benefits	-	$3,976	$4,477	$501
Total - Personnel Compensation and Benefits	**$14,656**	**$20,962**	**$24,186**	**$3,224**
Positions and FTE				
Positions - Civilian	100	148	148	-
FTE - Civilian	93	116	133	17

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	93	$14,656	$157.59	116	$20,962	$180.71	133	$24,186	$181.85	17	$3,224	$1.14
Total – Pay Cost Drivers	**93**	**$14,656**	**$157.59**	**116**	**$20,962**	**$180.71**	**133**	**$24,186**	**$181.85**	**17**	**$3,224**	**$1.14**

Cyber and Infrastructure Analysis – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
National Infrastructure Simulation Analysis Center (NISAC)	$18,650	$8,912	$8,912	-
Infrastructure Analysis	$8,574	$13,448	$11,585	($1,863)
Total	**$27,224**	**$22,360**	**$20,497**	**($1,863)**
Discretionary - Appropriation	$27,224	$22,360	$20,497	($1,863)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$200	$234	$234	-
22.0 Transportation of Things	$2	$2	$2	-
23.1 Rental Payments to GSA	$1,006	$1,209	$1,209	-
23.3 Communications, Utilities, and Misc. Charges	$688	$2,885	$2,746	($139)
24.0 Printing and Reproduction	$5	-	$5	$5
25.1 Advisory and Assistance Services	$6,582	$7,624	$3,227	($4,397)
25.2 Other Services from Non-Federal Sources	$646	$595	$700	$105
25.3 Other Goods and Services from Federal Sources	$17,505	$8,844	$11,455	$2,611
25.4 Operation and Maintenance of Facilities	$544	$931	$873	($58)
25.6 Medical Care	$1	-	$1	$1
26.0 Supplies and Materials	$30	$18	$30	$12
31.0 Equipment	$15	$18	$15	($3)
Total - Non Pay Object Classes	**$27,224**	**$22,360**	**$20,497**	**($1,863)**

.

National Infrastructure Simulation Analysis Center (NISAC) – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
National Infrastructure Simulation Analysis Center (NISAC)	-	-	$18,650	-	-	$8,912	-	-	$8,912	-	-	-
Total	**-**	**-**	**$18,650**	**-**	**-**	**$8,912**	**-**	**-**	**$8,912**	**-**	**-**	**-**
Subtotal Discretionary - Appropriation	-	-	$18,650	-	-	$8,912	-	-	$8,912	-	-	-

The National Infrastructure Simulation Analysis Center (NISAC) PPA in the Operations & Support appropriation leverages the advanced modeling and simulation capabilities of technical performers, including the National Laboratories, to model and understand regional and national-level direct and cascading impacts of failures and disruptions to infrastructure.

Through the NISAC PPA, NPPD conducts modeling, simulation, and advanced analytics to support planning and risk management, including in-depth studies on critical infrastructure dependencies and interdependencies. NPPD also provides crisis action support for quick-turn analysis.

NPPD's Office of Cyber and Infrastructure Analysis (OCIA) was originally designed to focus on the consequences associated with terrorist threats; however its mission has been expanded to encompass consequence analysis of the impacts to infrastructure from all hazards. OCIA has provided support before, during, and after every major hurricane since its inception. OCIA has additionally focused on developing modeling, simulation, and analytic capabilities for analyzing disruptions to critical infrastructure as a result of: hurricanes, earthquakes, tsunamis, floods, pandemics, industrial accidents, disruptions to the retail payment system, and weapons of mass effect. The foundational capabilities required for these analyses include geospatial hydrology models for flooding; the ability to model damage to the electric power grid, supply chains and network topologies; and infrastructure fragility modeling. The NISAC enables homeland security decision makers to leverage modeling and simulation capabilities to support both operational efforts and strategic planning.

Moreover, the NISAC provides strategic and multidisciplinary analyses of interdependencies and the consequences of infrastructure disruptions across all 16 critical infrastructure sectors at national, regional, and local levels. NISAC experts have developed, and are employing, tools to address the complexities of interdependent national infrastructure, including process-based systems dynamics models, mathematical network optimization models, physics-based models of existing infrastructure, and high-fidelity agent-based simulations of systems. The collaboration between NISAC and the National Laboratories taps into the Nation's scientific computational capabilities and modeling/analysis expertise. These capabilities and expertise afford NPPD the opportunity to discover previously-unknown relationships and develop insights about infrastructure vulnerabilities to natural disasters and intentional, and unintentional, man-made events. The collaboration allows NPPD to foster the unique capabilities of each

National Laboratory to provide analysis and simulation not available elsewhere. These collaborative capabilities support DHS's mission to protect and defend our Nation's critical infrastructure by aiding decision makers in the areas of policy analysis, investment and mitigation planning, education and training, and near real-time assistance to crisis response organizations.

National Infrastructure Simulation Analysis Center (NISAC) – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	$18,650
FY 2018 President's Budget	-	-	$8,912
FY 2019 Base Budget	-	-	$8,912
FY 2019 Current Services	-	-	$8,912
FY 2019 Request	-	-	$8,912
FY 2018 TO FY 2019 Change	-	-	-

National Infrastructure Simulation Analysis Center (NISAC) – PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
National Infrastructure Simulation Analysis Center (NISAC)	$18,650	$8,912	$8,912	-
Total	**$18,650**	**$8,912**	**$8,912**	**-**
Discretionary - Appropriation	$18,650	$8,912	$8,912	-

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
23.3 Communications, Utilities, and Misc. Charges	$688	$207	$68	($139)
25.1 Advisory and Assistance Services	$3,017	$1,845	-	($1,845)
25.2 Other Services from Non-Federal Sources	-	$158	-	($158)
25.3 Other Goods and Services from Federal Sources	$14,945	$6,702	$8,844	$2,142
Total - Non Pay Object Classes	**$18,650**	**$8,912**	**$8,912**	**-**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
NISAC	$17,602	$8,912	$8,912	$0
Other Costs	$1,048	$0	$0	$0
Total – Non Pay Cost Drivers	**$18,650**	**$8,912**	**$8,912**	**$0**

NON PAY NARRATIVE

NISAC: No change between FY 2018 and FY 2019.

Other Costs: No change between FY 2018 and FY 2019.

Infrastructure Analysis – PPA Level III
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Analysis	100	93	$23,230	148	116	$34,410	148	133	$35,771	-	17	$1,361
Total	**100**	**93**	**$23,230**	**148**	**116**	**$34,410**	**148**	**133**	**$35,771**	**-**	**17**	**$1,361**
Subtotal Discretionary - Appropriation	100	93	$23,230	148	116	$34,410	148	133	$35,771	-	17	$1,361

The Infrastructure Analysis PPA in the Operations & Support appropriation funds efforts to protect the Nation's critical infrastructure through an integrated analytical approach evaluating the potential consequences of disruption from physical or cyber threats and incidents through the NPPD Office of Cyber and Infrastructure Analysis (OCIA). This analysis informs decisions to strengthen infrastructure security and resilience, as well as response and recovery efforts during natural, man-made, and/or cyber incidents.

NPPD OCIA analytic products are presently distributed to over 20,000 recipients at DHS as well as other federal agencies; state, local, tribal, and territorial governments; and the private sector. NPPD OCIA provides analysis to support the following efforts:

- **Prioritization:** NPPD enables a cross-functional, national-level understanding of which systems and assets constitute critical infrastructure across 16 sectors. Prioritization supports steady-state and incident management decision-making by creating and distributing prioritized lists of critical infrastructure. Consistent with the 2007 Implementing Recommendations of the 9/11 Commission Act, NPPD will continue to maintain the National Critical Infrastructure Prioritization Program (NCIPP) list that identifies infrastructure that, if disrupted, could cause catastrophic impacts. Consistent with E.O. 13636, NPPD will also maintain the Cyber-Dependent Critical Infrastructure List that identifies the infrastructure for which a cybersecurity incident could result in catastrophic impacts. Finally, NPPD will develop Infrastructure of Concern (IOC) lists in advance of, and/or during, homeland security incidents. IOC lists are tailored to a particular location, and potential critical infrastructure impacts (e.g., physical and economic) are identified specific to a particular incident. The lists help in the prioritization of federal, state, and local response and recovery activities that relate to critical infrastructure.
- **Strategic Analysis:** NPPD assesses the likelihood and consequence of emerging risks and future risks to depict a holistic risk horizon for critical infrastructure across sectors and regions. This analysis identifies and provides risk management and mitigation options regarding vulnerabilities, consequences, and threats to critical infrastructure. A National Risk Estimate, as an example of a major strategic analysis, provides a focused analysis of current and emerging critical infrastructure risks that could arise from a specific threat or event across a three- to five-year timeframe.

- **Operational Analysis:** NPPD identifies and characterizes potential impacts to specific critical infrastructure sectors, as well as cross-sector consequences, caused by a homeland security incident or threat. In addition, NPPD plans, prepares for, and manages crisis action activities by coordinating with partners, developing Standard Operating Procedures, participating in exercises, and managing the development of decision support products for DHS leadership and public and private sector critical infrastructure partners. This includes surging during a threat or incident, identifying appropriate staffing, planning for shifts and rotations, managing requests for information, and training and deploying NPPD OCIA liaisons to FEMA and other organizations as the situation warrants. NPPD also produces and promulgates products and reports, provides risk briefings, and directs and coordinates the activities of the Infrastructure Analysis Cell to provide near-real-time integrated analysis to NPPD operational centers. NPPD will release all-hazard, risk-based products to partners, including regional critical infrastructure analysts and States' urban-area fusion centers.

All of these activities are supported by NPPD OCIA's modeling, simulation, and advanced analytic capabilities. NPPD builds and leverages unique capabilities of critical infrastructure modeling and simulation. It also leverages the advanced analytic resources of the National Infrastructure Simulation and Analysis Center (NISAC) to understand the impact and cascading effects of infrastructure failures and disruptions.

Infrastructure Analysis – PPA Level III
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**100**	**93**	**$23,230**
FY 2018 President's Budget	**148**	**116**	**$34,410**
FY 2019 Base Budget	**148**	**116**	**$34,410**
Transfer to O&S from PC&I for Modeling Capability Transition Environment (MCTE)	-	-	$500
Total Transfers	**-**	**-**	**$500**
Annualization of 2018 Pay Raise	-	-	$100
Annualization of 2018 Personnel Changes	-	17	$3,124
Total, Pricing Increases	**-**	**17**	**$3,224**
Annualization of 2018 Program Changes	-	-	($2,363)
Total, Pricing Decreases	**-**	**-**	**($2,363)**
Total Adjustments-to-Base	**-**	**17**	**$1,361**
FY 2019 Current Services	**148**	**133**	**$35,771**
FY 2019 Request	**148**	**133**	**$35,771**
FY 2018 TO FY 2019 Change	**-**	**17**	**$1,361**

Infrastructure Analysis – PPA Level III
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Analysis	100	93	$14,656	$157.59	148	116	$20,962	$180.71	148	133	$24,186	$181.85	-	17	$3,224	$1.14
Total	**100**	**93**	**$14,656**	**$157.59**	**148**	**116**	**$20,962**	**$180.71**	**148**	**133**	**$24,186**	**$181.85**	**-**	**17**	**$3,224**	**$1.14**
Discretionary - Appropriation	100	93	$14,656	$157.59	148	116	$20,962	$180.71	148	133	$24,186	$181.85	-	17	$3,224	$1.14

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$14,656	$16,291	$18,927	$2,636
11.3 Other than Full-Time Permanent	-	$262	$295	$33
11.5 Other Personnel Compensation	-	$433	$487	$54
12.1 Civilian Personnel Benefits	-	$3,976	$4,477	$501
Total - Personnel Compensation and Benefits	**$14,656**	**$20,962**	**$24,186**	**$3,224**
Positions and FTE				
Positions - Civilian	100	148	148	-
FTE - Civilian	93	116	133	17

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	93	$14,656	$157.59	116	$20,962	$180.71	133	$24,186	$181.85	17	$3,224	$1.14
Total – Pay Cost Drivers	**93**	**$14,656**	**$157.59**	**116**	**$20,962**	**$180.71**	**133**	**$24,186**	**$181.85**	**17**	**$3,224**	**$1.14**

Infrastructure Analysis PPA Level III
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Analysis	$8,574	$13,448	$11,585	($1,863)
Total	**$8,574**	**$13,448**	**$11,585**	**($1,863)**
Discretionary - Appropriation	$8,574	$13,448	$11,585	($1,863)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$200	$234	$234	-
22.0 Transportation of Things	$2	$2	$2	-
23.1 Rental Payments to GSA	$1,006	$1,209	$1,209	-
23.3 Communications, Utilities, and Misc. Charges	-	$2,678	$2,678	-
24.0 Printing and Reproduction	$5	-	$5	$5
25.1 Advisory and Assistance Services	$3,565	$5,779	$3,227	($2,552)
25.2 Other Services from Non-Federal Sources	$646	$437	$700	$263
25.3 Other Goods and Services from Federal Sources	$2,560	$2,142	$2,611	$469
25.4 Operation and Maintenance of Facilities	$544	$931	$873	($58)
25.6 Medical Care	$1	-	$1	$1
26.0 Supplies and Materials	$30	$18	$30	$12
31.0 Equipment	$15	$18	$15	($3)
Total - Non Pay Object Classes	**$8,574**	**$13,448**	**$11,585**	**($1,863)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Analysis	$6,664	$10,224	$7,931	($2,293)
Other Costs	$1,910	$3,224	$3,654	$430
Total – Non Pay Cost Drivers	**$8,574**	**$13,448**	**$11,585**	**($1,863)**

NON PAY NARRATIVE

Infrastructure Analysis: FY 2019 decrease to offset program dollars to annualize personnel changes included in the FY 2018 Presidents Budget Request. Source of offset will be to decrease spending in advisory and assistance services

Other Costs: FY 2019 increase is forecasted for Working Capital Fund contributions and travel costs.

Critical Infrastructure Situational Awareness – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Critical Infrastructure Situational Awareness	38	32	$16,176	51	41	$21,222	51	44	$23,429	-	3	$2,207
Total	**38**	**32**	**$16,176**	**51**	**41**	**$21,222**	**51**	**44**	**$23,429**	**-**	**3**	**$2,207**
Subtotal Discretionary - Appropriation	38	32	$16,176	51	41	$21,222	51	44	$23,429	-	3	$2,207

The Critical Infrastructure Situational Awareness PPA in the Operations & Support appropriation funds the coordination and information-sharing of operation centers that maintain situational awareness of the Nation's critical infrastructure for the federal government. By facilitating cross-domain physical security and cybersecurity coordination, these operation centers advance integrated cyber and physical risk management beyond the critical infrastructure owners and operators to include all of the federal interagency partners. This integrated approach to planning, information sharing, data sharing, and enhanced situational awareness maximizes the ability for leadership to make informed strategic and operational decisions around critical infrastructure security and resilience in both steady-state and incident-driven situations. This results in more synchronized response, mitigation, and recovery efforts.

The Critical Infrastructure Situational Awareness PPA supports one budget project: Critical Infrastructure Situational Awareness, which was formerly known as National Infrastructure Critical Coordination. In FY 2019, NPPD will continue to drive cross communication and information-sharing with owners and operators through cyber and infrastructure awareness and reporting, and critical infrastructure interagency coordination.

Critical Infrastructure Situational Awareness – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**38**	**32**	**$16,176**
FY 2018 President's Budget	**51**	**41**	**$21,222**
FY 2019 Base Budget	**51**	**41**	**$21,222**
Annualization of 2018 Pay Raise	-	-	$35
Annualization of 2018 Personnel Changes	-	6	$1,109
Annualization of 2018 Program Changes	-	-	$1,611
Total, Pricing Increases	**-**	**6**	**$2,755**
FTE Rightsizing	-	(3)	($548)
Total, Pricing Decreases	**-**	**(3)**	**($548)**
Total Adjustments-to-Base	**-**	**3**	**$2,207**
FY 2019 Current Services	**51**	**44**	**$23,429**
FY 2019 Request	**51**	**44**	**$23,429**
FY 2018 TO FY 2019 Change	**-**	**3**	**$2,207**

Critical Infrastructure Situational Awareness – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Critical Infrastructure Situational Awareness	38	32	$5,436	$169.88	51	41	$7,454	$181.8	51	44	$7,225	$164.2	-	3	($229)	($17.6)
Total	**38**	**32**	**$5,436**	**$169.88**	**51**	**41**	**$7,454**	**$181.8**	**51**	**44**	**$7,225**	**$164.2**	**-**	**3**	**($229)**	**($17.6)**
Discretionary - Appropriation	38	32	$5,436	$169.88	51	41	$7,454	$181.8	51	44	$7,225	$164.2	-	3	($229)	($17.6)

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$3,953	$5,441	$5,212	($229)
11.3 Other than Full-Time Permanent	$83	$112	$112	-
11.5 Other Personnel Compensation	$138	$188	$188	-
12.1 Civilian Personnel Benefits	$1,262	$1,713	$1,713	-
Total - Personnel Compensation and Benefits	**$5,436**	**$7,454**	**$7,225**	**($229)**
Positions and FTE				
Positions - Civilian	38	51	51	-
FTE - Civilian	32	41	44	3

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	32	$5,436	$161.88	41	$7,454	$181.80	44	$7,225	$164.20	3	($229)	($17.60)
Total – Pay Cost Drivers	**32**	**$5,436**	**$161.88**	**41**	**$7,454**	**$181.80**	**44**	**$7,225**	**$164.20**	**3**	**($229)**	**($17.60)**

Critical Infrastructure Situational Awareness – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Critical Infrastructure Situational Awareness	$10,740	$13,768	$16,204	$2,436
Total	**$10,740**	**$13,768**	**$16,204**	**$2,436**
Discretionary - Appropriation	$10,740	$13,768	$16,204	$2,436

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$88	$148	$148	-
25.1 Advisory and Assistance Services	$8,904	$10,669	$13,105	$2,436
25.2 Other Services from Non-Federal Sources	$10	$17	$17	-
25.3 Other Goods and Services from Federal Sources	$1,247	$2,105	$2,105	-
25.7 Operation and Maintenance of Equipment	$463	$781	$781	-
26.0 Supplies and Materials	$12	$20	$20	-
31.0 Equipment	$16	$28	$28	-
Total - Non Pay Object Classes	**$10,740**	**$13,768**	**$16,204**	**$2,436**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Critical Infrastructure Situational Awareness	$8,699	$12,153	$12,153	$0
Other Costs	$2,041	$1,615	$4,051	$2,436
Total Non Pay Cost Drivers	**$10,740**	**$13,768**	**$16,204**	**$2,436**

NON PAY NARRATIVE

Critical Infrastructure Situational Awareness: No change from FY 2018 to FY 2019.

Other Costs: Increase is due to the annualization of non-personnel program changes captured in the FY 2018 President's Budget. Other costs include the Working Capital Fund, shared services, and travel.

Stakeholder Engagement and Requirements – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Stakeholder Engagement and Requirements	104	59	$41,959	118	102	$46,904	118	96	$45,127	-	(6)	($1,777)
Total	**104**	**59**	**$41,959**	**118**	**102**	**$46,904**	**118**	**96**	**$45,127**	**-**	**(6)**	**($1,777)**
Subtotal Discretionary - Appropriation	104	59	$41,959	118	102	$46,904	118	96	$45,127	-	(6)	($1,777)

The Stakeholder Engagement & Requirements PPA in the Operations & Support appropriation supports the enhancement of domestic all-hazard, cybersecurity, and communications partnerships in critical infrastructure sectors. These partnerships advance national risk management objectives, provide for information exchange between government and industry, and support outreach and awareness activities. The project funds national planning efforts to mature national resiliency efforts and implement strategies that build assurance and resilience across the infrastructure community.

Stakeholder Engagement and Requirements - PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**104**	**59**	**$41,959**
FY 2018 President's Budget	**118**	**102**	**$46,904**
FY 2019 Base Budget	**118**	**102**	**$46,904**
Annualization of 2018 Pay Raise	-	-	$74
Annualization of 2018 Personnel Changes	-	2	$309
Total, Pricing Increases	**-**	**2**	**$383**
Annualization of 2018 Program Changes	-	-	($658)
FTE Rightsizing	-	(8)	($1,502)
Total, Pricing Decreases	**-**	**(8)**	**($2,160)**
Total Adjustments-to-Base	**-**	**(6)**	**($1,777)**
FY 2019 Current Services	**118**	**96**	**$45,127**
FY 2019 Request	**118**	**96**	**$45,127**
FY 2018 TO FY 2019 Change	**-**	**(6)**	**($1,777)**

Stakeholder Engagement and Requirements – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Stakeholder Engagement and Requirements	104	59	$10,264	$173.97	118	102	$15,502	$151.98	118	96	$14,677	$152.89	-	(6)	($825)	$0.91
Total	**104**	**59**	**$10,264**	**$173.97**	**118**	**102**	**$15,502**	**$151.98**	**118**	**96**	**$14,677**	**$152.89**	**-**	**(6)**	**($825)**	**$0.91**
Discretionary - Appropriation	104	59	$10,264	$173.97	118	102	$15,502	$151.98	118	96	$14,677	$152.89	-	(6)	($825)	$0.91

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$7,286	$10,415	$9,590	($825)
11.3 Other than Full-Time Permanent	$929	$897	$897	-
11.5 Other Personnel Compensation	$165	$159	$159	-
12.1 Civilian Personnel Benefits	$1,884	$4,031	$4,031	-
Total - Personnel Compensation and Benefits	**$10,264**	**$15,502**	**$14,677**	**($825)**
Positions and FTE				
Positions - Civilian	104	118	118	-
FTE - Civilian	59	102	96	(6)

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	59	$10,264	$173.97	102	$15,502	$151.98	96	$14,677	$152.89	(6)	($825)	$0.91
Total – Pay Cost Drivers	**59**	**$10,264**	**$173.97**	**102**	**$15,502**	**$151.98**	**96**	**$14,677**	**$152.89**	**(6)**	**($825)**	**$0.91**

Stakeholder Engagement and Requirements – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Stakeholder Engagement and Requirements	$31,695	$31,402	$30,450	($952)
Total	**$31,695**	**$31,402**	**$30,450**	**($952)**
Discretionary - Appropriation	$31,695	$31,402	$30,450	($952)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$988	$911	$911	-
22.0 Transportation of Things	$83	$76	$76	-
23.1 Rental Payments to GSA	$428	$395	$395	-
23.2 Rental Payments to Others	$272	$251	$251	-
25.1 Advisory and Assistance Services	$18,754	$19,461	$18,509	($952)
25.2 Other Services from Non-Federal Sources	$153	$141	$141	-
25.3 Other Goods and Services from Federal Sources	$9,639	$8,894	$8,894	-
25.4 Operation and Maintenance of Facilities	$5	$5	$5	-
25.7 Operation and Maintenance of Equipment	$1,222	$1,128	$1,128	-
26.0 Supplies and Materials	$75	$70	$70	-
31.0 Equipment	$76	$70	$70	-
Total - Non Pay Object Classes	**$31,695**	**$31,402**	**$30,450**	**($952)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Partnership & Resilience Support	$5,369	$8,502	$8,436	($66)
C3 Voluntary Program	$1,869	$1,869	$1,869	$0
Methodology Enhancement & Integration	$1,033	$1,033	$1,033	$0
Supply Chain	$1,765	$3,611	$3,611	$0
Vulnerability Assessments	$10,612	$10,999	$10,999	$0
Other Costs	$11,047	$5,388	$4,502	($886)
Total – Non Pay Cost Drivers	**$31,695**	**$31,402**	**$30,450**	**($952)**

NON PAY NARRATIVE

Partnership & Resilience Support: FY 2019 reflects a decrease in contractor support costs.

C3 Voluntary Program: No change between FY 2018 and FY 2019.

Methodology Enhancement & Integration: No change between FY 2018 and FY 2019.

Supply Chain: No change between FY 2018 and FY 2019.

Vulnerability Assessments: No change between FY 2018 and FY 2019.

Other Costs: FY 2019 request reflects the Working Capital Fund, shared services, and travel.

Strategy, Policy, and Plans – PPA Level II

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Strategy, Policy, and Plans	74	54	$9,669	74	63	$14,448	74	63	$13,931	-	-	($517)
Total	**74**	**54**	**$9,669**	**74**	**63**	**$14,448**	**74**	**63**	**$13,931**	**-**	**-**	**($517)**
Subtotal Discretionary - Appropriation	74	54	$9,669	74	63	$14,448	74	63	$13,931	-	-	($517)

The Strategy, Policy and Plans PPA in the Operations & Support appropriation supports the following:

- Articulating the long-term strategic vision for NPPD;
- Developing and implementing component-level strategy, policy, and planning that enables the enterprise strategic management process;
- Coordinating NPPD international policy, strategy, plans and engagements;
- Leading the development of integrated strategic, resource, and programmatic planning guidance;
- Conducting strategic, operational, and program evaluations; and
- Managing external audits and inspections in order to support senior leadership and guide operations to enhance the resilience of the nation's physical and cyber infrastructure.

Strategy, Policy, and Plans – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**74**	**54**	**$9,669**
FY 2018 President's Budget	**74**	**63**	**$14,448**
FY 2019 Base Budget	**74**	**63**	**$14,448**
Annualization of 2018 Pay Raise	-	-	$47
Total, Pricing Increases	**-**	**-**	**$47**
Annualization of 2018 Program Changes	-	-	($564)
Total, Pricing Decreases	**-**	**-**	**($564)**
Total Adjustments-to-Base	**-**	**-**	**($517)**
FY 2019 Current Services	**74**	**63**	**$13,931**
FY 2019 Request	**74**	**63**	**$13,931**
FY 2018 TO FY 2019 Change	**-**	**-**	**($517)**

Strategy, Policy, and Plans – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Strategy, Policy, and Plans	74	54	$7,281	$134.83	74	63	$9,937	$157.73	74	63	$9,983	$158.46	-	-	$46	$0.73
Total	**74**	**54**	**$7,281**	**$134.83**	**74**	**63**	**$9,937**	**$157.73**	**74**	**63**	**$9,983**	**$158.46**	**-**	**-**	**$46**	**$0.73**
Discretionary - Appropriation	74	54	$7,281	$134.83	74	63	$9,937	$157.73	74	63	$9,983	$158.46	-	-	$46	$0.73

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$5,211	$7,078	$7,857	$779
11.3 Other than Full-Time Permanent	$41	$165	$49	($116)
11.5 Other Personnel Compensation	$93	$72	$103	$31
12.1 Civilian Personnel Benefits	$1,936	$2,622	$1,974	($648)
Total - Personnel Compensation and Benefits	**$7,281**	**$9,937**	**$9,983**	**$46**
Positions and FTE				
Positions - Civilian	74	74	74	-
FTE - Civilian	54	63	63	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	54	$7,281	$134.83	63	$9,937	$157.73	63	$9,983	$158.46	-	$46	$0.73
Total – Pay Cost Drivers	**54**	**$7,281**	**$134.83**	**63**	**$9,937**	**$157.73**	**63**	**$9,983**	**$158.46**	**-**	**$46**	**$0.73**

Strategy, Policy, and Plans – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Strategy, Policy, and Plans	$2,388	$4,511	$3,948	($563)
Total	**$2,388**	**$4,511**	**$3,948**	**($563)**
Discretionary - Appropriation	$2,388	$4,511	$3,948	($563)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$19	$4,443	$1,956	($2,487)
25.1 Advisory and Assistance Services	$1,677	-	$1,324	$1,324
25.3 Other Goods and Services from Federal Sources	$692	-	$600	$600
26.0 Supplies and Materials	-	$68	$68	-
Total - Non Pay Object Classes	**$2,388**	**$4,511**	**$3,948**	**($563)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cyber Strategy, Policy & Plans	$0	$389	$389	$0
IP Strategy, Policy & Plans	$1,692	$3,090	$3,090	$0
Other Costs	$696	$1,032	$469	($563)
Total – Non Pay Cost Drivers	**$2,388**	**$4,511**	**$3,948**	**($563)**

NON PAY NARRATIVE

Cyber Strategy, Policy & Plans: No change from FY 2018 to FY 2019.

IP Strategy, Policy & Plans: No change from FY 2018 to FY 2019.

Other Costs: FY 2019 request reflects Working Capital Fund, shared services, and travel.

Office of Biometric Identity Management –PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Identity and Screening Program Operations	170	156	$71,954	170	154	$68,826	177	161	$69,590	7	7	$764
IDENT/Homeland Advanced Recognition Technology	-	-	$163,475	-	-	$150,603	-	-	$160,691	-	-	$10,088
Total	**170**	**156**	**$235,429**	**170**	**154**	**$219,429**	**177**	**161**	**$230,281**	**7**	**7**	**$10,852**
Subtotal Discretionary - Appropriation	170	156	$235,429	170	154	$219,429	177	161	$230,281	7	7	$10,852

The FY 2013 DHS Appropriations Act designated NPPD's Office of Biometric Identity Management (OBIM) as the lead entity within DHS for biometric identity services. OBIM assumed this cross-cutting responsibility from the former United States Visitor and Immigrant Status Indicator Technology (US-VISIT) program.

The OBIM PA in the Operations & Support appropriation provides the technology required to store collected biometric data, conduct matching and analyses, maintain biometrics/associated biographics, seamlessly share information, and ensure the security and integrity of the data. OBIM, as authorized by the Intelligence Reform and Terrorism Prevention Act, operates and maintains the Automated Biometric Identification System (IDENT) and provides expert identity services that match, store, share, and analyze biometric and associated biographic data. IDENT provides core biometric identity services for the dissemination of identity information in support of the immigration system, national security, and public safety.

Office of Biometric Identity Management PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$235,429**	**$219,429**	**$230,281**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$235,429**	**$219,429**	**$230,281**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$235,429**	**$219,429**	**$230,281**
Obligations (Actual/Projections/Estimates)	$227,191	$219,429	$230,281
Personnel: Positions and FTE			
Enacted/Request Positions	170	170	177
Enacted/Request FTE	156	154	161
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	170	170	177
FTE (Actual/Estimates/Projections)	161	154	161

Office of Biometric Identity Management – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**170**	**156**	**$235,429**
FY 2018 President's Budget	**170**	**154**	**$219,429**
FY 2019 Base Budget	**170**	**154**	**$219,429**
Transfer FTP/FTE to OBIM Identify and Screening Program	7	7	$993
Transfer to MGMT/CHCO from NPPD due to NFC Payroll Services Costs Removal	-	-	($5)
Total Transfers	**7**	**7**	**$988**
Annualization of 2018 Pay Raise	-	-	$104
Total, Pricing Increases	**-**	**-**	**$104**
Annualization of 2018 Program Changes	-	-	($328)
Total, Pricing Decreases	**-**	**-**	**($328)**
Total Adjustments-to-Base	**7**	**7**	**$764**
FY 2019 Current Services	**177**	**161**	**$220,193**
IDENT-HART Increase	-	-	$10,088
Total, Program Increases	**-**	**-**	**$10,088**
FY 2019 Request	**177**	**161**	**$230,281**
FY 2018 TO FY 2019 Change	**7**	**7**	**$10,852**

Office of Biometric Identity Management – PPA
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Identity and Screening Program Operations	170	156	$25,307	$162.22	170	154	$21,843	$141.84	177	161	$22,940	$142.48	7	7	$1,097	$0.64
Total	**170**	**156**	**$25,307**	**$162.22**	**170**	**154**	**$21,843**	**$141.84**	**177**	**161**	**$22,940**	**$142.48**	**7**	**7**	**$1,097**	**$0.64**
Discretionary - Appropriation	170	156	$25,307	$162.22	170	154	$21,843	$141.84	177	161	$22,940	$142.48	7	7	$1,097	$0.64

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$18,640	$16,089	$17,186	$1,097
11.3 Other than Full-Time Permanent	$245	$211	$211	-
11.5 Other Personnel Compensation	$117	$101	$101	-
12.1 Civilian Personnel Benefits	$6,305	$5,442	$5,442	-
Total - Personnel Compensation and Benefits	**$25,307**	**$21,843**	**$22,940**	**$1,097**
Positions and FTE				
Positions - Civilian	170	170	177	7
FTE - Civilian	156	154	161	7

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	156	$25,307	$162.22	154	$21,843	$141.84	161	$22,940	$142.48	7	$1,097	$0.64
Total – Pay Cost Drivers	**156**	**$25,307**	**$162.22**	**154**	**$21,843**	**$141.84**	**161**	**$22,940**	**$142.48**	**7**	**$1,097**	**$0.64**

NARRATIVE EXPLANATION OF CHANGES

- $1M is for the Transfer FTP/FTE to OBIM Identify and Screening Program.

FTE Change FY 2018-2019: 7
PCB Change FY 2018-2019: $1,097
Average Cost Change FY 2018-2019: $0.64

Office of Biometric Identity Management – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization (Dollars in Thousands)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Identity and Screening Program Operations	$46,647	$46,983	$46,650	($333)
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	$163,475	$150,603	$160,691	$10,088
Total	**$210,122**	**$197,586**	**$207,341**	**$9,755**
Discretionary - Appropriation	$210,122	$197,586	$207,341	$9,755

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$124	$124	$124	-
22.0 Transportation of Things	$70	$70	$70	-
23.1 Rental Payments to GSA	$412	$412	$412	-
23.3 Communications, Utilities, and Misc. Charges	$8,552	$8,552	$8,552	-
25.1 Advisory and Assistance Services	$727	$727	$1,328	$601
25.2 Other Services from Non-Federal Sources	$23,760	$24,096	$23,162	($934)
25.3 Other Goods and Services from Federal Sources	$12,900	$12,900	$12,900	-
25.7 Operation and Maintenance of Equipment	$163,475	$150,603	$160,691	$10,088
26.0 Supplies and Materials	$102	$102	$102	-
Total - Non Pay Object Classes	**$210,122**	**$197,586**	**$207,341**	**$9,755**

Identity and Screening Program Operations – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Identity and Screening Program Operations	170	156	$71,954	170	154	$68,826	177	161	$69,590	7	7	$764
Total	**170**	**156**	**$71,954**	**170**	**154**	**$68,826**	**177**	**161**	**$69,590**	**7**	**7**	**$764**
Subtotal Discretionary - Appropriation	170	156	$71,954	170	154	$68,826	177	161	$69,590	7	7	$764

OBIM's Identity and Screening Program Operations is comprised of Program Operations and Identity and Screening Services.

Program Operations: Program Operations consists of mission support services, corporate information technology, and systems engineering. Mission support services include activities such as the Working Capital Fund (including General Services Administration (GSA) rent), federal employee training, travel expenses, Biometric Support Center (BSC)-West rent, and logistical support. Corporate information technology consists of hardware, software (maintenance and licensing agreements), data circuit maintenance costs, information backup and storage, Tier 1/2/3 help desk and application support, and network and telecommunication services for employee desktop support. OBIM utilizes systems engineering to plan for and sustain information technology services. Systems engineering activities include capacity planning and analyses that promote consistent and efficient information technology planning, design, development, testing, and deployment. Other services performed under systems engineering include: system availability and system capacity monitoring, and performance and service quality analysis to mitigate system failures and sustain system operations to meet customer requirements.

Identity and Screening Services: Identity and Screening Services consist of three components: the BSC, Identity Information Sharing and Reporting, and Biometric Standards.

Biometric Support Center
BSC is a 24x7x365 operation that provides manual 10-print verification, latent print services, and supplemental biometric services. BSC provides expert fingerprint identification services to verify automated matches and to analyze latent fingerprint submissions. Approximately 99.5 percent of all transactions are matched through a search of IDENT; BSC fingerprint examiners manually verify the remaining 0.5 percent. Manual fingerprint verification is necessary to analyze poor quality fingerprints and ensure derogatory data is not erroneously associated with an individual. Latent print examiners compare and verify known fingerprints with previously-unidentified latent fingerprints collected by agencies at crime scenes and terrorist incidents. Biometric searches are manual comparisons of fingerprints submitted by OBIM clients, while Biometric Requests respond to client agency requests for a set of biometric records within IDENT. BSC strives to complete urgent fingerprint verifications in less than 10 minutes, non-urgent

verifications within 24 hours, and enrollment and verification of terrorism-related prints in two hours or less.

Identity Information Sharing and Reporting
Identity Information Sharing and Reporting provides person-centric identity management services which focus on biometrics in response to analytical, investigative, and operational requests from law enforcement, intelligence agencies, and foreign government partners. OBIM Identity Analysts:

- Coordinate with the FBI Terrorist Screening Center to enroll Known or Suspected Terrorist information into IDENT;

- Support identity fraud detection activities; and,

- Provide notification to customers of recently-established derogatory information.

Identity Analysts research, process, and coordinate biometric matches with existing OBIM domestic and international partners. They also support the extension of services to additional partners. Identity Analysts continue to publish Information Bulletins.

Biometric Standards
Biometric Standards resources are utilized to comply with Executive Order 13356 (2004), which strives to develop common standards for sharing of terrorism information by agencies within the Intelligence Community. As defined in the DHS Biometric Strategic Framework: "over the next 10 years, DHS will move toward person-centric view capabilities, rather than an inefficient encounter-based approach." Person-centric approaches will facilitate "multiple uses for a single biometric collection," and enable multiple encounters with the same individual, even those that occur with different DHS components and, potentially, international partner organizations, to be integrated into a single record of a person's activities over time. To facilitate a person-centric approach the DHS enterprise must adopt and use common standards for the expanding array of biometric information that new technologies will bring to identity-related decisions. Biometric data interoperability is an important foundation for next-generation person-centric approaches that take advantage of new technologies and new partners.

Identity and Screening Program Operations – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**170**	**156**	**$71,954**
FY 2018 President's Budget	**170**	**154**	**$68,826**
FY 2019 Base Budget	**170**	**154**	**$68,826**
Transfer FTP/FTE to OBIM Identify and Screening Program	7	7	$993
Transfer to MGMT/CHCO from NPPD due to NFC Payroll Services Costs Removal	-	-	($5)
Total Transfers	**7**	**7**	**$988**
Annualization of 2018 Pay Raise	-	-	$104
Total, Pricing Increases	**-**	**-**	**$104**
Annualization of 2018 Program Changes	-	-	($328)
Total, Pricing Decreases	**-**	**-**	**($328)**
Total Adjustments-to-Base	**7**	**7**	**$764**
FY 2019 Current Services	**177**	**161**	**$69,590**
FY 2019 Request	**177**	**161**	**$69,590**
FY 2018 TO FY 2019 Change	**7**	**7**	**$764**

Identity and Screening Program Operations – PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Identity and Screening Program Operations	170	156	$25,307	$162.22	170	154	$21,843	$141.84	177	161	$22,940	$142.48	7	7	$1,097	$0.64
Total	**170**	**156**	**$25,307**	**$162.22**	**170**	**154**	**$21,843**	**$141.84**	**177**	**161**	**$22,940**	**$142.48**	**7**	**7**	**$1,097**	**$0.64**
Discretionary - Appropriation	170	156	$25,307	$162.22	170	154	$21,843	$141.84	177	161	$22,940	$142.48	7	7	$1,097	$0.64

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$18,640	$16,089	$17,186	$1,097
11.3 Other than Full-Time Permanent	$245	$211	$211	-
11.5 Other Personnel Compensation	$117	$101	$101	-
12.1 Civilian Personnel Benefits	$6,305	$5,442	$5,442	-
Total - Personnel Compensation and Benefits	**$25,307**	**$21,843**	**$22,940**	**$1,097**
Positions and FTE				
Positions - Civilian	170	170	177	7
FTE - Civilian	156	154	161	7

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Civilian Total	156	$25,307	$162.22	154	$21,843	$141.84	161	$22,940	$142.48	7	$1,097	$0.64
Total – Pay Cost Drivers	**156**	**$25,307**	**$162.22**	**154**	**$21,843**	**$141.84**	**161**	**$22,940**	**$142.48**	**7**	**$1,097**	**$0.64**

Identity and Screening Program Operations – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Identity and Screening Program Operations	$46,647	$46,983	$46,650	($333)
Total	**$46,647**	**$46,983**	**$46,650**	**($333)**
Discretionary - Appropriation	$46,647	$46,983	$46,650	($333)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$124	$124	$124	-
22.0 Transportation of Things	$70	$70	$70	-
23.1 Rental Payments to GSA	$412	$412	$412	-
23.3 Communications, Utilities, and Misc. Charges	$8,552	$8,552	$8,552	-
25.1 Advisory and Assistance Services	$727	$727	$1,328	$601
25.2 Other Services from Non-Federal Sources	$23,760	$24,096	$23,162	($934)
25.3 Other Goods and Services from Federal Sources	$12,900	$12,900	$12,900	-
26.0 Supplies and Materials	$102	$102	$102	-
Total - Non Pay Object Classes	**$46,647**	**$46,983**	**$46,650**	**($333)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Biometric Verification	$11,042	$11,100	$11,100	$0
Program Support	$29,709	$29,298	$29,298	$0
Other Costs	$5,896	$6,585	$6,252	($333)
Total – Non Pay Cost Drivers	**$46,647**	**$46,983**	**$46,650**	**($333)**

NON PAY NARRATIVE

Biometric Verification: No change between FY 2018 and FY 2019.

Program Support: No change between FY 2018 and FY 2019.

Other Costs: FY 2019 request reflects Working Capital Fund, shared services, and travel.

IDENT/Homeland Advanced Recognition Technology Operations & Maintenace – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	-	-	$163,475	-	-	$150,603	-	-	$160,691	-	-	$10,088
Total	**-**	**-**	**$163,475**	**-**	**-**	**$150,603**	**-**	**-**	**$160,691**	**-**	**-**	**$10,088**
Subtotal Discretionary - Appropriation	-	-	$163,475	-	-	$150,603	-	-	$160,691	-	-	$10,088

NPPD's Office of Biometric Identity Management (OBIM) is the lead DHS identity management service provider ensuring that the homeland is safe, secure, and resilient. Evolving from the US-VISIT Program in 2013, OBIM serves as a single authoritative biometric service provider, with cross-cutting responsibilities to serve DHS Components and other mission partners such as the Department of Justice, Department of State, and Department of Defense; state, local, and tribal law enforcement; the Intelligence Community; and foreign government partners. OBIM provides biometric identity services through the Automated Biometric Identification System (IDENT), which stores biometric identities and conducts recurrent matching against derogatory information. OBIM analysts also provide human biometric verification and search capabilities, provide updates to the IDENT biometric watchlist, and respond to requests for IDENT biometric records to support analytical, investigative, and operational needs of customers and partners. With services that match, store, share, and analyze biometric data, OBIM provides decision makers on the front lines of homeland security with rapid, accurate, and secure identity services as required by public law. NPPD OBIM's associated goals are aligned with DHS strategic goals and priorities.

IDENT supports Presidential Directives such as: the Homeland Security Presidential Directive (HSPD)-6: Integration and Use of Screening Information to Protect against Terrorism; HSPD-11: Comprehensive Terrorist-Related Screening Procedures; HSPD-12: Policy for a Common Identification Standard for Federal Employees and Contractors; and HSPD-24: Biometrics for Identification of Screening to Enhance National Security.

The IDENT/Homeland Advanced Recognition Technology (HART) PPA in O&S consists of data center operations (Level 1 and 2 services), application management (Level 3 services), application software, lifecycle replacement, quality assurance/independent verification and validation (IV&V), and testing.

Data Center Operations
Data Center Operations (DCO) include IT security, hardware maintenance, network services, and system maintenance agreements. It also provides

for facility services, including physical security, environmental services (power, air conditioning, and fire protection), shipping and receiving services, and custodial services.

In addition to facilities services, DCO contains Level 1 and 2 services, which provide:

- Level 1 - Basic hardware hosting services which include, but are not limited to: equipment installation including site preparation, scheduling, and readiness reviews; rack and cable management; management of hardware and software maintenance; software license agreements; inventory management and disposal.

- Level 2 – Services for operation system-level support which include, but are not limited to: operating system installation and configuration; patch and operating system management; installation and maintenance of system-level software, critical security patches, and management of shared file systems; backups of server data to tape or other media; restoration of server volumes or reinstatement of data files; management of Level 2 service desk and communication and coordination with other help desks across DHS Components; and receiving, recording, processing, and resolving incidents within an IT system management system.

Application Management (Level 3 Services)
Level 3 Services provide application-level support of internal system code and configurations for adaptive, preventive, and perfective maintenance; release and configuration management; interface support; and troubleshooting. Technical support for problem resolution is provided 24x7x365.

Application Software
Application software is utilized to perform system functions for system-specific tasks and to improve system productivity and efficiency. Software licensing includes, but is not limited to, database, security, and load balancing software. Enterprise licensing agreements are utilized for economies of scale and cost savings.

Lifecycle Replacement
Lifecycle replacement includes industry-standard technical refreshes of outdated hardware and software, since hardware and software mature over time. Manufacturer support varies by product and is replaced by new technology, resulting in enhanced performance and operational efficiencies.

Quality Assurance (QA)/Independent Verification &Validation (IV&V) and Testing
QA/IV&V and testing include activities associated with deployed system applications and affiliated system change requests. IV&V tests products or system changes in an operational environment by assessing operational effectiveness and suitability of OBIM products.

IDENT/Homeland Advanced Recognition Technology Operations & Maintenance-PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$163,475**
FY 2018 President's Budget	-	-	**$150,603**
FY 2019 Base Budget	-	-	**$150,603**
FY 2019 Current Services	-	-	**$150,603**
IDENT-HART Increase	-	-	$10,088
Total, Program Increases	-	-	**$10,088**
FY 2019 Request	-	-	**$160,691**
FY 2018 TO FY 2019 Change	-	-	**$10,088**

IDENT/Homeland Advanced Recognition Technology Operations & Maintenance-PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	$163,475	$150,603	$160,691	$10,088
Total	**$163,475**	**$150,603**	**$160,691**	**$10,088**
Discretionary - Appropriation	$163,475	$150,603	$160,691	$10,088

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.7 Operation and Maintenance of Equipment	$163,475	$150,603	$160,691	$10,088
Total - Non Pay Object Classes	**$163,475**	**$150,603**	**$160,691**	**$10,088**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
IDENT/Homeland Advanced Recognition Technology	$163,475	$150,603	$160,691	$10,088
Total – Non Pay Cost Drivers	**$163,475**	**$150,603**	**$160,691**	**$10,088**

NON PAY NARRATIVE

IDENT/Homeland Advanced Recognition Technology: Increase reflects the program change request of $10.1M to fund the acquisition profile for operations and support costs.

Department of Homeland Security

National Protection and Programs Directorate

Procurement, Construction, and Improvements

Fiscal Year 2019
Congressional Justification

Table of Contents

Procurement, Construction, and Improvements
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cybersecurity	$299,180	$241,309	$235,626	($5,683)
Emergency Communications	$88,055	$48,905	$42,551	($6,354)
Biometric Identity Management	$52,800	$40,100	$20,000	($20,100)
Integrated Operations Assets and Infrastructure	-	$500	-	($500)
Infrastructure Protection	-	$4,219	$4,787	$568
Total	**$440,035**	**$335,033**	**$302,964**	**($32,069)**
Discretionary - Appropriation	$440,035	$335,033	$302,964	($32,069)

Overview

The National Protection and Programs Directorate (NPPD) Procurement, Construction, and Improvements (PC&I) appropriation supports activities which enhance the security and resilience of infrastructure terrorist attacks, cyber events, natural disasters, and other large-scale incidents, including national security special events. Secure and resilient infrastructure is essential for national security, economic vitality, and public health and safety.

PC&I provides funds necessary for the planning, operational development, engineering and purchase of one or more assets (which hereinafter also refers to end items) prior to sustainment. Information Technology (IT) related PC&I may consist of one or more end items which provide useful software and/or hardware in an operational (production) environment, including non-tangible assets.

Unless otherwise stipulated by regulation or statute, an end item, or improvement project, purchased with PC&I funding has:
- Personal Property, a unit cost of greater than $250,000, or
- Real Property, a unit cost of greater than $2M.

All investments within the appropriation are justified for the budget year with previous year's investment levels provided.

Activities are organized according to the following program/project/activity (PPA) structure:

- **Cybersecurity** – This PPA contains the Continuous Diagnostics & Mitigation (CDM) and National Cybersecurity Protection System (NCPS) investment programs.

  CDM enhances the overall security posture of Federal agencies' networks by providing Federal agencies with the capability to identify cybersecurity risks, prioritize these risks based upon potential impacts, and mitigate the most significant problems first. CDM assists in protecting agencies against exploitation by unauthorized and unmanaged hardware and software; known vulnerabilities; weak configuration settings (including port, protocols, and services); insider attacks; and loss of confidentiality, integrity, or availability due to unanticipated events and attacks requiring recovery or special responses.

  NCPS is an integral part of the cybersecurity community, providing near real-time protection and information to Federal civilian Departments and Agencies; cyber centers; and other Federal, state and local authorities. NCPS consists of the hardware, software, supporting processes, training, and services being developed and acquired in direct support of the Department of Homeland Security's mission requirements delineated in the Comprehensive National Cybersecurity Initiative (CNCI) and mandated in National Security Presidential Directives 54 (NSPD-54) / Homeland Security Presidential Directive 23 (HSPD-23).

- **Emergency Communications** - Emergency Communications is responsible for advancing the Nation's interoperable emergency communications capabilities to enable first responders and government officials to continue to communicate in the event of disasters. This PPA contains the Next Generation Network Priority Services (NGN-PS) program, which supports the development, testing, implementation, and sustainment of National Security/Emergency Preparedness (NS/EP) communications, including: communications that support Continuity of Government; and Federal, State, local, territorial, and tribal emergency preparedness and response communications.

- **Biometric Identity Management** – The Office of Biometric Identity Management (OBIM) provides biometric identification services to help federal, state, and local government partners to accurately identify people they encounter to determine if they pose a risk to the United States. This program supplies the technology for collecting and storing biometric data. The program shares information, provides analyses, updates watch lists, and ensures the integrity of the data. This PPA contains the Homeland Advanced Recognition Technology (HART) program. The HART system replaces the legacy Automated Biometric Identity System (IDENT) system with improved, efficient and more cost effective biometric identity services capabilities.

- **Integrated Operations Assets and Infrastructure** - Integrated Operations Assets and Infrastructure ensures domain awareness through the sustainment of command and control, coordination, information sharing, and situational awareness in support of multiple mission programs. This program includes PC&I funds supporting the Office of Cyber and Infrastructure (OCIA), which carries out procurement actions in relation to consequence analysis, decision support and modeling, 24x7 critical infrastructure watch operations, emergency preparedness, stakeholder engagement, external affairs, privacy, and strategic planning.

- **Infrastructure Protection** – The Infrastructure Protection program conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners and operators and state, local, tribal, and territorial partners understand and address risks to critical infrastructure. Additionally, it provides information on emerging threats and hazards and offers tools and training to partners to help them manage risks to critical infrastructure.

  This PPA includes funds for the Infrastructure Protection Gateway (IP Gateway) investment, which supports the NPPD in meeting its mission of assessing key assets (e.g., bridge, power grid, dam, and subways) and critical infrastructure vulnerabilities and taking action to mitigate vulnerabilities, enhance security, and ensure continuity and necessary redundancy.

Procurement, Construction, and Improvements
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$440,035**	**$335,033**	**$302,964**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$254,388	$98,323
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$440,035**	**$589,421**	**$401,287**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$440,035**	**$589,421**	**$401,287**
Obligations (Actual/Projections/Estimates)	$185,287	$484,146	$325,651
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Procurement, Construction, and Improvements
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$440,035**
FY 2018 President's Budget	-	-	**$335,033**
FY 2019 Base Budget	-	-	**$500**
Transfer to O&S from PC&I for Modeling Capability Transition Environment (MCTE)	-	-	($500)
Transfer to PC&I from O&S for Infrastructure Info and Sensitive Data Protection	-	-	$2,320
Transfer to PC&I from O&S for National Cybersecurity Protection System (NCPS)	-	-	$68,000
Total Transfers	-	-	**$69,820**
Total Adjustments-to-Base	-	-	**$69,820**
Continuous Diagnostics and Mitigation Investment	-	-	$125,548
Homeland Advanced Recognition Technology Investment	-	-	$20,000
Infrastructure Protection Gateway Investment	-	-	$2,467
National Cybersecurity Protection System Investment	-	-	$42,078
Next Generation Network-Priority Services (NGN-PS) Investment	-	-	$42,551
Total Investment Elements	-	-	**$232,644**
FY 2019 Current Services	-	-	**$302,964**
FY 2019 Request	-	-	**$302,964**
FY 2018 TO FY 2019 Change	-	-	**($32,069)**

Procurement, Construction, and Improvements
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$23	$17	$11	($6)
22.0 Transportation of Things	$19	$11	$16	$5
23.1 Rental Payments to GSA	$1,067	$4,449	$1,067	($3,382)
23.2 Rental Payments to Others	$985	$558	$985	$427
25.1 Advisory and Assistance Services	$93,830	$44,226	$123,279	$79,053
25.2 Other Services from Non-Federal Sources	$11,173	$138	$73	($65)
25.3 Other Goods and Services from Federal Sources	$285,934	$181,825	$65,093	($116,732)
25.4 Operation and Maintenance of Facilities	$1,545	$1,373	$1,545	$172
25.7 Operation and Maintenance of Equipment	$2,972	$8,690	$90,108	$81,418
26.0 Supplies and Materials	$38	$6	$38	$32
31.0 Equipment	$41,701	$90,939	$20,001	($70,938)
32.0 Land and Structures	$748	$2,801	$748	($2,053)
Total - Non Pay Object Classes	**$440,035**	**$335,033**	**$302,964**	**($32,069)**

Procurement, Construction, and Improvements
Capital Investments Exhibits

Capital Investments

Investment *(Dollars in Thousands)*	**Unique Item Identifier**	**Acquisition Level**	**Procurement/ Construction**	**IT/Non-IT**	**MAOL**	**FY 2017 Enacted**	**FY 2018 President's Budget**	**FY 2019 President's Budget**
Continuous Diagnostics and Mitigation	024-000009571	1	Procurement	IT	Yes	$217,409	$185,180	$125,548
National Cybersecurity Protection System	024-000009508	1	Procurement	IT	Yes	$81,771	$56,129	$110,078
Next Generation Networks Priority Services	024-000009540	1	Procurement	IT	Yes	$88,055	$48,905	$42,551
Homeland Advanced Recognition Technology (HART)	024-000009560	1	Procurement	IT	Yes	$52,800	$40,100	$20,000
Infrastructure Protection (IP) Gateway	024-000009567	3	Procurement	IT	No	-	$4,219	$4,787
Modeling Capability Transition Environment	Not assigned at this time	Non-Major	Procurement	IT	No	-	$500	-

Cybersecurity – PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Continuous Diagnostics and Mitigation	$217,409	$185,180	$125,548	($59,632)
National Cybersecurity Protection System	$81,771	$56,129	$110,078	$53,949
Total	**$299,180**	**$241,309**	**$235,626**	**($5,683)**
Discretionary - Appropriation	$299,180	$241,309	$235,626	($5,683)

The FY 2019 President's Budget includes $235.6M for the Cybersecurity PPA in the PC&I appropriation, $125.5M for CDM and $110.1M for NCPS.

The CDM program consists of the following capability-based phases:
- Phase 1: Provides network discovery and endpoint laptops/desk tops/servers, and management tools allowing agencies to track all deployed assets and ensure they are configured properly so that they are not open to an attack;
- Phase 2: Provides strong authentication for users with elevated privileges and for general users protecting an Agency against adversaries from gaining access to critical systems;
- Phase 3: Strengthens protections by standardizing incident reporting, management and mitigation, and providing extended security for agency high value assets.

A proposed Phase 4 addresses data protection on agency networks.   This gives agencies additional information needed to address advanced persistent threats and other events happening in their networks. Department and Agency Dashboards provide near real-time reporting of agency cybersecurity posture that streamlines compliance and reporting, increases the visibility into vulnerabilities for consistent risk evaluations, and aligns responses to track and respond with mitigations. The CDM Federal Dashboard makes agency summary system security data available to all departments and agencies; enabling government entities to expand their continuous monitoring capabilities by increasing their network sensor capacity, automating sensor collections, and prioritizing risk alerts. This approach lowers the operational risk of information security systems and .gov networks.

The FY 2019 funding of $125.5M for CDM will fully fund the CDM investment profile, providing additional resources to complete Phase 1 gaps remaining in agencies; integrate and complete Phase 2 deployment; continue Phase 3 capability deployment; begin deployment of Phase 4 pilots at selected agencies focusing on protecting data on the network; and provide continued support for the Federal dashboard and agency dashboards. Originally conceived as a three-phased program, the ever-changing cybersecurity landscape requires the CDM program to evolve beyond network

protections to include data protections. This will significantly enhance Federal civilian agency capabilities to strengthen their ability to prepare for and respond to incident management, as well as protect data through stronger boundary protection and other means.

The FY 2019 funding of $110.1M for NCPS will fully fund the NCPS investment profile and keep providing near real-time protection and information to Federal civilian Departments and agencies; cyber centers; and other Federal, state and local authorities. This investment would allow NCPS to continue to build on already deployed capabilities and expand access to DHS threat information and analysis.

In FY 2019, NCPS will continue to build on already deployed capabilities and expand access to DHS threat information and analysis. NCPS would enhance the sensor platform and integrate non-signature based capabilities. Specifically in the Analytics capability set, NCPS would improve the ability to prioritize cyber risks, automatically triage incidents, enrich indicators automatically, and automate response actions to protect Departments/agencies and other stakeholders; expand the use of reputation scores, confidence levels and impact by incorporating initial CDM information with a goal to support decision analysis and automated responses; and continue maturing streaming Analytics to identify patterns in live data and include processes and tools associated with near real-time analysis.

Also in FY 2019, NCPS will continue to develop and deploy information sharing capabilities that focus on rapid and machine-to-machine sharing of incidents, indicators, and malware samples; continue improvements to the NCPS Indicator Management Platform to provide analysts with improved capability to visualize, link, manage and operationalize indicators and cyber threat intelligence; continue the deployment of cross domain solution capabilities to enhance the rapid and machine-to-machine sharing of incidents, indicators, and malware samples; and continue to expand the use of Homeland Security Information Network (HSIN) portal and collaboration services.

NCPS follows an incremental system development approach, developing and releasing capabilities in "blocks." Blocks 2.0 and 2.1 have been successfully released; Blocks 2.2 and 3.0 are in development. Block 2.2's goal is to provide information sharing capabilities in a secure environment for sharing cybersecurity information, at all classification levels, with a wide range of security operations and information sharing centers across Federal, state, local, tribal, private, and international boundaries. In FY 2019, Blocks 3.0's goal is to provide an active intrusion prevention capability that conducts threat-based decision making on network traffic entering or leaving the Federal Executive Branch civilian networks and disables attempted intrusions before harm is done; Top Secret Mission Operating Environment (MOE) at NCPS Operations and Data Centers; classified and unclassified signatures and countermeasures; and, back-end data storage and data processing capabilities located at DHS Data Centers.

Cybersecurity – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$299,180**	**$241,309**	**$235,626**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$169,709	$48,442
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$299,180**	**$411,018**	**$284,068**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$299,180**	**$411,018**	**$284,068**
Obligations (Actual/Projections/Estimates)	$129,111	$362,576	$236,942
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Cybersecurity – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$299,180**
FY 2018 President's Budget	-	-	**$241,309**
FY 2019 Base Budget	-	-	**-**
Transfer to PC&I from O&S for National Cybersecurity Protection System (NCPS)	-	-	$68,000
Total Transfers	-	-	**$68,000**
Total Adjustments-to-Base	-	-	**$68,000**
Continuous Diagnostics and Mitigation Investment	-	-	$125,548
National Cybersecurity Protection System Investment	-	-	$42,078
Total Investment Elements	-	-	**$167,626**
FY 2019 Current Services	-	-	**$235,626**
FY 2019 Request	-	-	**$235,626**
FY 2018 TO FY 2019 Change	-	-	**($5,683)**

Cybersecurity – PPA
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$11	$17	$11	($6)
22.0 Transportation of Things	$3	$11	$3	($8)
23.1 Rental Payments to GSA	$187	$2,769	$187	($2,582)
23.2 Rental Payments to Others	-	$558	-	($558)
25.1 Advisory and Assistance Services	$83,961	$34,894	$113,410	$78,516
25.2 Other Services from Non-Federal Sources	$47	$137	$47	($90)
25.3 Other Goods and Services from Federal Sources	$212,214	$140,378	$32,075	($108,303)
25.4 Operation and Maintenance of Facilities	$1,483	$1,373	$1,483	$110
25.7 Operation and Maintenance of Equipment	$519	$8,028	$87,655	$79,627
26.0 Supplies and Materials	$6	$6	$6	-
31.0 Equipment	$1	$50,337	$1	($50,336)
32.0 Land and Structures	$748	$2,801	$748	($2,053)
Total - Non Pay Object Classes	**$299,180**	**$241,309**	**$235,626**	**($5,683)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
CDM Investment Cost	$217,409	$185,180	$125,548	($59,632)
NCPS Investment Cost	$81,771	$56,129	$110,078	$53,949
Total – Non Pay Cost Drivers	**$299,180**	**$241,309**	**$235,626**	**($5,683)**

CDM Investment Cost - Decrease in accordance with acquisition profile.
- CDM LCCE Re-baseline of $22.4M from PC&I to NPPD's Operations and Support (O&S) appropriation.
- Phase 1: Starting in FY 2019, 100% of CDM participating agencies are expected to have primary Phase 1 capabilities; implementation of Group F (small/micro agencies) will be completed during FY 2019. Some tools originally deployed will no longer be supported and will be refreshed. Phase 1 work is largely in the O&S stage.
- Phase 2: Implementation is expected to be complete by FY 2019, and all participating agencies will have Phase 2 and strong authentication for privileged users implemented; no further Phase 2 activities are planned for FY 2019.

NCPS Investment Cost – Increase in accordance with acquisition profile.
- NCPS LCCE Rebaseline of $2.4M from PC&I to O&S
- The Intrusion Detection and Prevention change is primarily associated with the decrease in Intrusion Prevention system enhancements and traffic aggregation deployment efforts from the prior year.
- The Core Infrastructure change is primarily associated with the decrease in Mission Operating Environment (MOE) hardware and installation costs from the prior year.
- This request fully funds the necessary investment activities for future capability design and development, increasing the Program's ability to analyze, detect, and prevent cybersecurity threats and to share cybersecurity information with public/private partners

Cybersecurity – PPA
Capital Investments Exhibits
Capital Investments

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Continuous Diagnostics and Mitigation	024-000009571	1	Procurement	IT	Yes	$217,409	$185,180	$125,548
National Cybersecurity Protection System	024-000009508	1	Procurement	IT	Yes	$81,771	$56,129	$110,078

Continuous Diagnostics and Mitigation – Investment

Capital Investments Exhibits
Procurement/Acquisition Programs

Continuous Diagnostics and Mitigation (CDM)
Procurement, Construction, and Investments Funding

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Continuous Diagnostics and Mitigation	024-000009571	1	Procurement	IT	Yes	$217,409	$185,180	$125,548

Investment Description

The current threat environment requires a dynamic approach to fortifying Federal and other government cyber networks. With CDM, .gov systems are being automatically assessed to identify cyber risks and flaws for priority resolution. The CDM program provides cybersecurity tools, integration services, and dashboards to all participating agencies to enable them to improve their respective security postures by reducing the attack surface of their networks.

CDM will provision Agency Dashboards to provide participating agencies with near real-time awareness of their agency's cybersecurity posture. This awareness enables agencies to streamline compliance and reporting, increase the visibility into vulnerabilities for consistent risk evaluations, and align responses to fix their worst problems first. CDM will also maintain a Federal Dashboard, which receives summary data feeds from Agency Dashboards to provide increased visibility into the Federal cybersecurity posture. The Federal Dashboard enables coordinated and improved Federal cybersecurity response capabilities and enable enhanced trending capabilities to measure agency improvements.

CDM is a continuing Federal priority. Since 2012, OMB identified the importance of continually monitoring Federal information technology networks by establishing it as one of its 14 cross-agency priority (CAP) goals (in accordance with the *Government Performance and Results Modernization Act*).   In 2016, OMB released Memorandum 16-04, *Cybersecurity Strategy and Implementation Plan (CSIP)* for the Federal Government, accelerating the deployment of CDM capabilities to all participating Federal agencies to enhance detection of cyber vulnerabilities and protection from cyber threats. Additionally, CDM is supported by Executive Order (E.O.) 13636: *Improving Critical Infrastructure Cybersecurity*, and is directly linked to the current E.O. 13800: *Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure* undertaken by the current Administration.

Justification

The FY 2019 President's Budget will allow CDM to continue to enable agencies to strengthen their networks in the face of continued cyber threats across the entire civilian Federal domain.

CDM Procurement, Construction, and Improvements (PC&I) FY 2017-2019			
CDM Program ($K)	**FY 2017 Enacted**	**FY 2018 CJ**	**FY 2019 CJ**
Dashboard	$ 46,787	$ 43,019	$ 7,754
Phase 1	$ 85,584	$ 10,543	$ 25,545
Phase 2	$ 30,000	$ 32,000	$ -
Phase 3	$ 17,807	$ 89,618	$ 75,249
Phase 4	$ 3,000	$ 10,000	$ 17,000
Engineer Support Services	$ 22,413	$ -	$ -
CDM Travel/WCF/SS/Training	$ 11,818	$ -	$ -
PC&I Total:	**$ 217,409**	**$185,180**	**$ 125,548**

The program provides CDM agency dashboards to participating agencies; the dashboards provide near real-time awareness of their agency's cybersecurity posture. CDM also maintains a Federal dashboard, which receives summary data feeds from agency dashboards to provide increased visibility into the Federal cybersecurity posture. In FY 2019, CDM will ensure that agency dashboards reflect sensor data from Phase 2 tools delivered in FY 2017 and FY 2018.

CDM Phase 1 provides network discovery and endpoint (laptops/desk tops/servers) management tools, allowing the agency to continuously know what software and hardware they have on their network and to understand whether or not those assets are vulnerable and are configured securely. CDM Phase 1 enables Departments and agencies to manage identified assets and properly configure them so they are no longer open to attack. In FY 2019, CDM plans to use PC&I funds to begin refreshing Phase 1 tools originally deployed in 2014.

CDM Phase 2 provides tools to ensure agency employees do not access information or systems beyond their established privileges, credentials, and training. Agencies will be able to manage user accounts and protect against adversaries from gaining access to critical systems. In FY 2019, CDM will ensure that agency dashboards reflect sensor data from Phase 2 tools delivered in FY 2017 and FY 2018.

CDM Phase 3 capability deployment will continue in FY 2019, focusing on boundary protection, managing events, managing and preparing for events and incidents, and strengthening lifecycle security management. CDM Phase 3 will provide capability to Federal civilian Departments and agencies against anomalous activity inside Federal networks and alerting security personnel for expedited remediation. In this case, anomalous

activity includes an adversary's attempt to move across a network and access sensitive data.

CDM Phase 4 deployment will begin in FY 2019 with pilots deployed at selected agencies ready for the data protection capabilities. CDM Phase 4 focuses on protecting data on the network.

FY 2019 will also include continued support of the Federal and agency dashboards. The CDM Federal and agency dashboards will compile, analyze, and report on the cyber health of the government.

FY 2017 Planned Key Milestone Events
- Phase 1: Deployed balance of CDM Phase 1 tools to agencies.
- Phase 1: Provided CDM tools via shared services approach to non-CFO Act agencies.
- Phase 2: Provided strong authentication and enable participating agencies to manage user accounts by deploying Phase 2 tools.
- Phase 3: Finalized acquisition strategy to provide dashboard integration and Phase 3 capabilities to agencies.
- Dashboard: Completed Operational Test and Readiness Review for Federal Dashboard Release 2.
- Dashboard: Made Federal dashboard available for agency connectivity.
- Dashboard: Connected all Phase 1 tools to agency dashboards.
- Dashboard: Began exchanging data between agency and Federal dashboards to identify trends and collecting metrics.
- Dashboard: Developed risk scoring approach to enhance agencies' ability to fix their worst problems first

FY 2018 Planned Key Milestone Events
- Phase 1: Release follow-on task orders to continue dashboard services and Phase 3 capabilities.
- Phase 2: Continue to deploy Phase 2 tools to agencies.
- Phase 2: Initial Operational Capability (IOC) – Planned for September.
- Phase 3: Release follow-on task orders to continue dashboard services and begin deploying Phase 3 capabilities.
- Phase 4: Active planning to determine most effective approach to delivering Phase 4 tools and services.
- Dashboard: Continue data exchanges for Phase 1 tools between agency and Federal dashboards to identify trends and collect metrics.
- Dashboard: Continue development risk scoring approach to enhance agencies' ability to fix their worst problems first.

FY 2019 Planned Key Milestone Events
- Phase 1: Begin tool refresh for Phase 1 tools deployed in the original delivery and task orders.
- Phase 2: Using the CDM DEFEND task order, integrate Phase 2 capabilities into the dashboard at agencies.
- Phase 3: Support existing CDM DEFEND task orders to continue deploying Phase 3 capabilities.
- Phase 4: Begin Phase 4 pilot programs at selected agencies and refine plans for full deployment in future years.
- Dashboard: Transition to new contract for dashboard support; continued support to Federal and Agency dashboard operations; continued evolution of risk scoring algorithm.

Overall Investment Funding

	Prior Years	FY 2017	FY 2018	FY 2019
Operations and Support		$7,565	$93,780	$112,089
Procurement, Construction, and Improvements		$217,409	$185,180	$125,548
Research and Development		$0	$0	$0
Project Funding	$689,669	$224,974	$278,960	$237,637
Obligations	$259,350	$91,042		
Expenditures	$375,418	$33,705		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
HSHQDC15F00050	Knight Point Systems LLC	Interagency Agreement	02/15	02/15	02/18	No	$1,530
GSQ0014AJ0058	Metrica Team Venture	Contract	03/14	03/14	03/19	Yes	$47,330
GSQ0015AJ0041	Knowledge Consulting Group	Task Order	02/15	02/15	02/18	No	$38,160
GSQ0015AJ0052	Booz Hamilton, Inc	Task Order	04/15	04/15	04/18	No	$49,320
GSQ0015AJ0086	Booz Hamilton, Inc	Task Order	08/15	08/15	08/18	No	$82,930
GSQ0015AJ0087	HP Enterprise Services, LLC	Task Order	09/15	09/15	08/18	No	$24,560
GSQ0015AJ0097	Northrop Grumman	Task Order	09/15	09/15	09/18	No	$59,590
GSQ0016AJ0045	Booz Hamilton, Inc	Task Order	02/16	02/16	02/19	No	$50,420
GSQ0016AJ0056	Knowledge Consulting Group	Task Order	06/16	06/16	06/19	No	$85,430
GSQ0017AJ0005	CGI Federal, Inc.	Task Order	11/16	11/16	10/19	No	$102,470
GSQ0016AJ0087	ManTech Advanced Systems International, Inc.	Task Order	06/16	06/16	06/19	No	$25,550
HSSA0313C5101	JHU/APL	Contract	09/13	09/13	09/18	No	$24,690
HSHQDC15X00193	NIST	Interagency Agreement	10/15	10/15	09/20	No	$12,740

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
HSHQDC17X00088	Sandia	Contract	06/17	06/17	06/18	No	$630
HSSA0113X2713	Ida	Interagency Agreement	12/12	12/12	11/17	No	$3,810
HAHQDC17J00070	MITRE	Interagency Agreement	03/17	03/17	12/17	No	$2,530
HSSA0115X2203	SEI-CMU	Contract	06/17	06/17	05/18	No	$106,530
HSSA0113C1102	Vencore	Contract	09/13	09/13	09/18	No	$163,350
HSHQDC-17-X-001	SPAWAR (Lafayette Group, Inc.)	IAA	09/16	04/17	09/21	No	$18,000
HSSA0116F1401	Potomac Wave	Contract	06/16	08/17	08/17	No	$1,100
HSSA0314X6203	Sandia	Contract	05/16	05/16	04/17	No	$350

Significant Changes to Investment since Prior Year Enacted

In FY 2016 CDM identified significant underreporting of assets by numerous agencies. As a result, the CDM program was directed to rebaseline the Life Cycle Cost Estimate (LCCE) to further refine costs and technical requirements which became the basis for formulating the FY 2019 President's Budget. In addition to the rebaseline effort, the program is also pursuing a Phase 4 Acquisition Decision Event in FY 2018 to enhance data modern Federal architecture, implementing capabilities such as micro-segmentation and data loss prevention, further reducing the risk of data processed by mission critical, high value assets.

Investment Schedule

Description	Design Work		Project Work	
	Initiated	Completed	Initiated	Completed
FY 2017				
NPPD - CDM - CMaaS Implementation TO2A (p)			06/17/16	06/16/18
NPPD - CDM - CMaaS Implementation TO2B (p)			04/26/16	04/25/18
NPPD - CDM - CMaaS Implementation TO2C (p)			09/21/16	09/20/18
NPPD - CDM - CMaaS Implementation TO2D (p)			09/11/16	09/10/18
NPPD - CDM - CMaaS Implementation TO2E (p)			09/11/16	09/10/18
NPPD - CDM - CMaaS Implementation TO2F (p)			07/12/17	07/11/19
NPPD - CDM - Dashboard (p)			03/03/15	10/31/19
NPPD - CDM - TO PrivMgmt (p)			06/29/16	06/28/18
NPPD – CDM – TO CredMgmt			11/01/16	10/31/18

Description	Design Work		Project Work	
	Initiated	**Completed**	**Initiated**	**Completed**
FY 2018				
NPPD - CDM - CMaaS Implementation TO2A (p)			06/17/16	06/16/18
NPPD - CDM - CMaaS Implementation TO2B (p)			04/26/16	04/25/18
NPPD - CDM - CMaaS Implementation TO2C (p)			09/21/16	09/20/18
NPPD - CDM - CMaaS Implementation TO2D (p)			09/11/16	09/10/18
NPPD - CDM - CMaaS Implementation TO2E (p)			09/11/16	09/10/18
NPPD - CDM - CMaaS Implementation TO2F (p)			07/12/17	07/11/19
NPPD - CDM - Dashboard (p)			03/03/15	10/31/19
NPPD - CDM - TO PrivMgmt (p)			06/29/16	06/28/18
NPPD – CDM – TO CredMgmt			11/01/16	10/31/18
FY 2019				
NPPD - CDM - CMaaS Implementation TO2A (p)			06/17/16	06/16/18
NPPD - CDM - CMaaS Implementation TO2B (p)			04/27/16	04/26/18
NPPD - CDM - CMaaS Implementation TO2C (p)			09/21/16	09/20/18
NPPD - CDM - CMaaS Implementation TO2D (p)			09/11/16	09/10/18
NPPD - CDM - CMaaS Implementation TO2E (p)			09/11/16	09/10/18
NPPD - CDM - CMaaS Implementation TO2F (p)			07/12/17	07/11/19
NPPD - CDM - Dashboard (p)			03/03/15	10/31/19
NPPD - CDM - TO PrivMgmt (p)			06/29/16	06/28/18
NPPD – CDM – TO CredMgmt			11/01/16	10/31/18

National Cybersecurity Protection System – Investment

Capital Investments Exhibits

Procurement/Acquisition Programs

National Cybersecurity Protection System (NCPS)
Procurement, Construction, and Investments Funding

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
National Cybersecurity Protection System	024-000009508	1	Procurement	IT	Yes	$81,771	$56,129	$110,078

Investment Description

NCPS provides a wide range of cybersecurity capabilities for the perimeter defense of the ".gov" domain: intrusion detection, intrusion prevention, advanced cyber analytics, information sharing, and core infrastructure using classified and unclassified information. While the intrusion detection and prevention capabilities are provided as direct services to the Departments and Agencies, the analytics, information sharing, and core infrastructure capabilities directly support the National Cybersecurity Coordination and Integration Center (NCCIC) analysts and operators. NCPS intrusion detection and prevention sensors are positioned external to the Departments and Agencies networks, but will work in conjunction with the CDM capabilities that are placed inside the Department and Agency network, to provide a layered defense-in-depth approach to protecting the ".gov" domain.

NCPS follows an incremental system development approach, developing and releasing capabilities in "blocks." Blocks 2.0 and 2.1 have been released, and Blocks 2.2 and 3.0 are in development. The goal of Block 2.2 is to provide information sharing capabilities in a secure environment for sharing cybersecurity information, at all classification levels, with a wide range of security operations and information sharing centers across Federal, state, local, tribal, private, and international boundaries.

NCPS is directly linked to the following: the Federal Cybersecurity Enhancement Act of 2015 (Title II Subtitle B of the Cybersecurity Act of 2015), directing DHS to deploy a capability to detect and prevent cybersecurity risks in network traffic transiting or traveling to or from an agency information system; E.O. 13800: *Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure* undertaken by the current Administration; E.O. 13636: *Improving Critical Infrastructure Cybersecurity*; and OMB Memorandum 16-04, *Cybersecurity Strategy and Implementation Plan (CSIP)* for the Federal Government, accelerating the deployment of EINSTEIN capabilities to all participating Federal agencies to enhance detection of cyber vulnerabilities and protection from cyber threats.

<u>**Justification**</u>

NCPS is a foundational element in the suite of programs, systems, and processes deployed to protect the federal cyberspace. NCPS capabilities include the EINSTEIN set of capabilities which support the deployment of intrusion detection/prevention, information sharing, and advanced analytic capabilities to enhance protection from cyber threats. The EINSTEIN capabilities under NCPS include EINSTEIN 1, which provides network flow monitoring services (i.e. monitors amount of traffic moving), EINSTEIN 2 which provides intrusion detection services (i.e. flags possible malicious activity but does not take action based on cyber-threat signatures), and EINSTEIN 3 Accelerated (E3A), which provides intrusion prevention services (i.e. stops possible malicious activity based on cyber-threat signatures).

Funding in the FY 2019 request will allow NCPS to provide enhanced analytics and detection capabilities to improve upon the services provided by EINSTEIN 2 and E3A. Specifically, capabilities will be developed and deployed that will allow the NCCIC to conducts threat-based decision making on network traffic entering or leaving the Federal Executive Branch civilian networks and take appropriate action to disrupt malicious cyber activity. Additionally, the FY 2019 investment will provide Top Secret Mission Operating Environment at NCPS Operations and Data Centers, classified and unclassified signatures and countermeasures, and back-end data storage and data processing capabilities located at DHS Data Centers.

<u>**FY 2017 Planned Key Milestone Events**</u>
- Intrusion Detection/Prevention:
  - Developed new intrusion detection capabilities that allows for the detection of previously unknown cyber threats through the use of anomalous network traffic pattern detection algorithms and techniques that can then be utilized within the EINSTEIN 2 and E3A intrusion detection/prevention capabilities to alert and/or stop the newly identified threats.
  - Continued to expand E3A protection of cloud-based email systems used by Departments and Agencies.
- Information Sharing:
  - Completed the migration of the US-CERT Portal to DHS Homeland Security Information Network (HSIN) and rebranded the portal the NCCIC Portal.
  - Completed the build out of the NCPS core infrastructure environment to host the CDM Federal Dashboard.
  - Enhanced collaboration capabilities supporting cross-agency and center analytic collaboration against large and detailed data sets.
  - Continued to build on capabilities supporting deploying advanced tools and technologies expanding cybersecurity community's access to DHS threat information and analysis.
  - Increased the breadth of threat data pulled into NCPS and the speed by which that information is correlated with agency data.
- Analytics:
  - Expanded the use of reputation scores and confidence levels with a goal to support automated responses, allowing NCCIC analysts to parse through the tens of thousands of indicators received and determine which rise to a level of needing analyst attention and sensor tasking. Reputation scores and confidence levels also provide NCCIC analysts with data necessary to make risk-based decisions on automating responses to possible threats.
  - Continued maturing analytics to look for and identify patterns of suspicious malicious activity in near real-time, as opposed to the current technique of "batch analytics" that review network data after it is brought back to the core infrastructure environment.

Maturing streaming analytic capability provides NCPS the ability to more quickly process large amounts of data to better identify anomalous patterns that would lead to the identification of previously unknown threats.

- Core Infrastructure:
  - o Continued to increase core infrastructure (also referred to as the Mission Operating Environment (MOE)) capacity to support the predicted user base expansion from delivery of NCPS InfoShare capabilities, which includes capabilities such as the Indicator Management Platform, content discovery, workflow automation, as well as future information sharing capabilities
  - o Sustained all development, test, and production environments and all deployed capabilities running on those environments.

FY 2018 Planned Key Milestone Events
- Intrusion Detection/Prevention:
  - o Expand new capabilities within sensor suite or via deployed near-real time analytics that allow detection of new threats or attempted malicious actions.
  - o Technology upgrade of sensor suite to improve performance, reliability, and expand capacity.
  - o Expand protection capability for cloud email providers.
  - o Develop advanced packet inspection capabilities to increase threat identification accuracy and further cyber threat detection coverage.
- Analytics:
  - o Expand the use of reputation scores or confidence levels of cyber threat information and impact by incorporating initial CDM information collected via the CDM Federal Dashboard to enhance NCCIC decision analysis and automated responses. The implementation of reputation scores and confidence intervals provides NCCIC analysts information necessary to make risk-based decisions on automating responses to possible threats.
  - o Continue maturing streaming Analytics to identify patterns in live data and include processes and tools associated with near real-time analysis.
- Information Sharing:
  - o Enhance information sharing capabilities, such as automated workflow and data management, in order to support increased automated information sharing with the cybersecurity community.
  - o Enhancing the rapid and machine-to-machine sharing of incidents, indicators, and malware samples. Begin planning and development of cross domain capabilities.
  - o Adopt and expand use of the HSIN collaboration service.
  - o Expand the use of the Identity, Credentialing, and Access Management (ICAM) service to improve access and consumption of DHS cyber information.
  - o Expand and evolve the Automated Indicator Sharing (AIS) service to support evolving STIX and TAXII standards and number of AIS participants. STIX and TAXII have become international standards, have been increasingly adopted, and have evolved to support improved sharing of cyber threat intelligence.
  - o Evaluation of cloud technologies to expand and extend MOE services and capacity to meet user needs.

FY 2019 Planned Key Milestone Events

- Analytics:
  - Continue to expand the use of CDM information with a goal to support decision analysis and automated responses.
  - Continue to expand and mature the automated decision analysis tools that support workflow automation, incident and indicator triage, and automated response actions.
  - Continue capability design and development, increasing the program's ability to analyze, detect, and prevent cybersecurity threats and to share cybersecurity information with public/private partners.
  - Continue maturing streaming analytics to identify patterns in live data and include processes and tools associated with near real-time analysis. This activity is leading NCPS to being able to identify previously unknown threats in near real-time.
  - Continue to maintain and support tech refresh of analytic platforms.
- Information Sharing:
  - Continue improvements to the NCPS Indicator Management Platform to provide analysts with improved capability to visualize, link, manage and operationalize indicators and cyber threat intelligence to improve the ability to detect and prevent threats using EINSTEIN 2 and E3A capabilities. Additionally, the improved intelligence will be shared with customers through Automated Indicator Sharing (AIS) and other NCCIC information sharing programs.
  - Continue the deployment of cross domain solution capabilities to enhance the rapid and machine-to-machine sharing of incidents, indicators, and malware samples.
  - Continue to expand the use of the HSIN portal and collaboration services.

Overall Investment Funding

	Prior Years	FY 2017	FY 2018	FY 2019
Operations and Support		$385,879	$341,103	$296,677
Procurement, Construction, and Improvements		$81,771	$56,129	$110,078
Research and Development		-	-	-
Project Funding	$2,244,100	$467,650	$397,232	$406,755
Obligations	$334,789	$301,051		
Expenditures	$1,857,200	$104,668		

Updated with overall prior year numbers. With the change in CAS PC&I has not been broken out prior to FY 2016.

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
HSSA0117D1202	Raytheon	Indefinite-Delivery	06/17	06/17	06/22	No	$1,150

Significant Changes to Investment since Prior Year Enacted

Significant changes in NCPS since FY 2017 include removal of Secret/Top Secret instances from Information Sharing; incorporating the adoption of HSIN Portal and Collaboration Services; and refinement of PC&I and O&S funding estimates within the LCCE, based on implementation of the new Common Appropriation Structure (CAS) structure within DHS.

In order to be in alignment with NCPS's rebaselined LCCE, the request moves $68.0M from O&S to PC&I, ensuring that the PC&I Appropriation is sufficiently funded to carry out its investment activities for future capability design and development, increasing the Program's ability to analyze, detect, and prevent cybersecurity threats and to share cybersecurity information with public/private partners.

Investment Schedule

Description	Design Work		Project Work	
	Initiated	**Completed**	**Initiated**	**Completed**
FY 2017				
NPPD - NCPS - NCPS Block 2.2 (p)			10/01/16	03/30/19
NPPD - NCPS - NCPS Block 3.0 (p)			10/01/16	12/31/18
NPPD - NCPS - NCPS Maintenance (p)			10/01/15	09/30/22
FY 2018				
NPPD - NCPS - NCPS Block 2.2 (p)			10/01/17	03/30/19
NPPD - NCPS - NCPS Block 3.0 (p)			10/01/17	12/31/18
NPPD - NCPS - NCPS Maintenance (p)			10/01/17	09/30/22
FY 2019				
NPPD - NCPS - NCPS Block 2.2 (p)			10/01/18	09/30/19
NPPD - NCPS - NCPS Block 3.0 (p)			10/01/18	12/31/18
NPPD - NCPS - NCPS Maintenance (p)			10/01/18	09/30/22

Emergency Communications – PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Next Generation Networks Priority Services	$88,055	$48,905	$42,551	($6,354)
Total	**$88,055**	**$48,905**	**$42,551**	**($6,354)**
Discretionary - Appropriation	$88,055	$48,905	$42,551	($6,354)

The FY 2019 President's Budget includes $42.6M for the Emergency Communications Preparedness PPA in NPPD's PC&I appropriation.

The FY 2019 funds will fund the Next Generation Networks Priority Services (NGN-PS) program, which provides specialized modeling and analysis to predict and mitigate the effect of communications failures during times of crisis. Through these analyses, it provides critical risk assessments for the Communications sector during response to man-made or natural disasters, in addition to assisting restoration and recovery efforts.

NGN-PS is a multi-phase, multi-increment, technology insertion that will ultimately deliver priority voice, and data communication services. Phase 1, Increment 1 addresses the transition of legacy, priority voice capabilities in the commercial carriers' long distance core networks. Phase 1, Increment 2 works with major commercial telecommunications carriers as they transition to IP-based infrastructures to ensure continuity of NS/EP priority service. Phase 1, Increment 3 is required for Government Emergency Telecommunications Service (GETS) and Special Routing Arrangement Service (SRAS) portion of the network that supports priority at the local exchange carrier (LEC).

Emergency Communications – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$88,055**	**$48,905**	**$42,551**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$62,827	$9,781
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$88,055**	**$111,732**	**$52,332**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$88,055**	**$111,732**	**$52,332**
Obligations (Actual/Projections/Estimates)	$25,228	$101,951	$43,822
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Emergency Communications – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$88,055**
FY 2018 President's Budget	-	-	**$48,905**
FY 2019 Base Budget	-	-	**-**
Next Generation Network-Priority Services (NGN-PS) Investment	-	-	$42,551
Total Investment Elements	-	-	**$42,551**
FY 2019 Request	-	-	**$42,551**
FY 2018 TO FY 2019 Change	-	-	**($6,354)**

Emergency Communications – PPA
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$12	-	-	-
22.0 Transportation of Things	$16	-	$13	$13
23.1 Rental Payments to GSA	$880	$1,680	$880	($800)
23.2 Rental Payments to Others	$985	-	$985	$985
25.1 Advisory and Assistance Services	$9,869	$9,332	$9,869	$537
25.2 Other Services from Non-Federal Sources	$26	$1	$26	$25
25.3 Other Goods and Services from Federal Sources	$73,720	$37,228	$28,231	($8,997)
25.4 Operation and Maintenance of Facilities	$62	-	$62	$62
25.7 Operation and Maintenance of Equipment	$2,453	$662	$2,453	$1,791
26.0 Supplies and Materials	$32	-	$32	$32
31.0 Equipment	-	$2	-	($2)
Total - Non Pay Object Classes	**$88,055**	**$48,905**	**$42,551**	**($6,354)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Next Generation Networks Priority Services (NGN-PS) Overall Funding	$88,055	$48,905	$42,551	($6,354)
Total – Non Pay Cost Drivers	**$88,055**	**$48,905**	**$42,551**	**($6,354)**

Next Generation Networks Priority Services (NGN-PS) - Decrease in accordance with acquisition profile (LCCE) - Phase 1, Increment 1 planned for completion in FY 2018.

Emergency Communications – PPA
Capital Investments Exhibits
Capital Investments

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Next Generation Networks Priority Services	024-000009540	1	Procurement	IT	Yes	$88,055	$48,905	$42,551

Next Generation Network Priority Services – Investment

Capital Investments Exhibits

Procurement/Acquisition Programs

Next Generation Network – Priority Services (NGN-PS)
Procurement, Construction, and Investments Funding

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non- IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Next Generation Networks Priority Services	024-000009540	1	Procurement	IT	Yes	$88,055	$48,905	$42,551

Investment Description

The NGN-PS program responds to Executive Order (EO) 13618, Assignment of National Security and Emergency Preparedness Communications Functions, which directs the Secretary of DHS to oversee the development, testing, implementation, and sustainment of NS/EP communications, including: communications that support Continuity of Government; Federal, state, local, territorial, and tribal emergency preparedness and response communications.

The legacy Priority Telecommunication Services (PTS) program provides priority access for NS/EP users; however, this capability will be lost as Service Provider's replace aging circuit switched networks with IP-based next generation networks. These IP based next generation networks will not support legacy PTS routing protocols leaving an operational gap for priority access. NGN-PS addresses this capability gap by providing highly survivable, commercial telecomm assets to provide the Government with priority communications capabilities over nationwide networks at a fraction of the cost required to build a Government-owned system.

Justification

NGN-PS ensures the continuity of priority telecommunications during an emergency through the continuation of NS/EP priority services currently provided via commercial networks. As major commercial telecommunications carriers replace their current circuit-switched infrastructure with IP-based infrastructure, NGN-PS upgrades will ensure new network infrastructures are capable to accommodate the more than 450,000 authorized users with the ability to communicate during crises. When deployed, NGN-PS technologies will provide all levels of government with priority communications capabilities over robust and diverse nationwide communications networks at a fraction of the cost required to build and maintain a government-owned system.

NGN-PS is a multi-phase, multi-increment, technology insertion that will ultimately deliver priority voice and data communication services:
Phase 1: Voice

- Increment 1: Core voice and long distance with priority access capability over an IP-based infrastructure.
- Increment 2: Wireless Access/Cellular with priority access capability. Increment 2 assists major telecommunications carriers as they transition from 2/3G calling to 4G/LTE networks
- Increment 3: Wireline Access supporting priority access at the Local Exchange Carriers. Increment 3 is required for the GETS and SRAS portion of the network.

Public telecommunications networks complete calls through three different elements. The first element is long distance networks that interconnect local and regional carriers, the second is wireless services provided by cellular carriers, and the third is landline services provided by local carriers. Wireless services have been funded previously and funding needs to continue to complete the update and provide end-to-end priority.

In FY 2019, NGN-PS will achieve full operational capability (FOC) on the carriers' core Voice over Internet Protocol (VoIP) long distance backbone networks (Increment 1).

NGN-PS has been working with cellular carriers since FY 2015 to implement priority services for national security and emergency preparedness users in their new 4G/LTE networks. FY 2019 funding provides for continued carrier design, development, and certification of Wireless Priority Services (WPS) priority features on their 4G/LTE networks to prevent a NS/EP telecommunications shortfall as the carriers start to decommission their 2G networks supporting WPS. FY 2019 funding will continue to implement the end-to-end priority service over the new 4G technologies to ensure priority services are available as carriers' transition to IP only networks.

It is critical that NGN track carriers' conversion to IP on cellular networks to ensure priority services are always available for national security and emergency preparedness users. Without the required funding, the program will not have priority cellular voice and will not meet the requirements for national security and emergency preparedness.

FY 2017 Key Milestone Events
- Worked with the Operational Test Agent to summarize testing of Long Distance priority communications for NS/EP users to help achieve FOC.
- Completed IOC for Phase 1, Increment 2. Two major wireless carriers now have 4G priority over their radio access network.
- Identified needed operational metrics to collect performance data for Phase 1, Increment 2.

FY 2018 Planned Key Milestone Events
- IOC on three Wireless Priority Service commercial carriers for Phase 1, Increment 2.
- Reach FOC on Phase 1, Increment 1.
- Begin Phase 1, Increment 3, Wireline Access, planning and prototyping.

- Provide end-to-end Wireless Priority Service on largest carrier.
- Provide FOC on all long distance carriers Phase 1, Increment 1.

FY 2019 Planned Key Milestone Events
- Provide end-to-end priority on two wireless carriers in support of Phase 1, Increment 2.
- Being Phase 1, Increment 3 development.

Overall Investment Funding

	Prior Years	FY 2017	FY 2018	FY 2019
Operations and Support		$2,214	$7,636	$7,618
Procurement, Construction, and Improvements		$88,055	$48,905	$42,551
Research and Development		$0	$0	$0
Project Funding	$305,059	$90,269	$56,541	$50,169
Obligations	$118,760	$25,728		
Expenditures	$133,182	$11,455		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
HC101314C0003	AT&T	Firm Fixed Price	08/14	07/14	03/24	N/A	$210,870
HC101314C0001	Sprint	Firm Fixed Price	03/14	03/14	03/24	N/A	$161,130
HC101314C0002	Verizon	Firm Fixed Price	05/14	05/14	03/24	N/A	$ 210,472
HSHQDC15C00059	Leidos	Combination (two or more)	03/17	03/18	03/22	N/A	$33,751
HSHQDC15X00007	JITC (DoD)	Cost No Fee	03/15	03/15	09/17	No	$2,740

Significant Changes to Investment since Prior Year Enacted

N/A

Investment Schedule

Description	Design Work		Project Work	
	Initiated	**Completed**	**Initiated**	**Completed**
FY 2017				
Common	10/01/06	09/30/24	09/01/13	09/30/24
Phase 1 Increment 1	06/01/08	09/30/20	09/01/13	06/01/19
Phase 1 Increment 2	10/01/15	09/30/24	08/01/17	09/30/24
SP1	04/01/14	09/30/24		
SP2	06/01/14	09/30/24		
SP3	09/01/14	09/30/24	08/01/17	09/30/19
Wireless Capability	10/01/14	09/30/15		
FY 2018				
Common	10/01/06	09/30/24	09/01/13	09/30/24
Phase 1 Increment 1	06/01/08	09/30/20	08/01/17	09/30/24
Phase 1 Increment 2	10/01/15	09/30/24	08/01/17	09/30/24
SP1	04/01/14	09/30/24	06/01/18	09/30/22
SP2	06/01/14	09/30/24	10/01/18	09/30/24
SP3	09/01/14	09/30/24	08/01/17	09/30/19
FY 2019				
Common	10/01/06	09/30/24	09/01/13	09/30/24
Phase 1 Increment 1	06/01/08	09/30/20	08/01/17	09/30/24
Phase 1 Increment 2	10/01/15	09/30/24	08/01/17	09/30/24
SP1	04/01/14	09/30/24	06/01/18	09/30/22
SP2	06/01/14	09/30/24	10/01/18	09/30/24
SP3	09/01/14	09/30/24	08/01/17	09/30/19

Note: Service Provider (SP)

Biometric Identity Management PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
IDENT/Homeland Advanced Recognition Technology	$52,800	$40,100	$20,000	($20,100)
Total	**$52,800**	**$40,100**	**$20,000**	**($20,100)**
Discretionary - Appropriation	$52,800	$40,100	$20,000	($20,100)

The FY 2019 President's Budget includes $20.0M for the Biometric Identity Management PPA in NPPD's PC&I appropriation.

The Office of Biometric Identity Management's (OBIM) mission is to provide enduring, single authoritative biometric identity services to the DHS and its mission partners that advance informed decision making by producing accurate, timely and high assurance biometric identity information and analysis. OBIM identifies individuals with certainty, in a timely manner, and broadens the scope of thousands of known or suspected terrorists. In FY 2019, OBIM will sustain operations of core biometric identity management services, while planning for additional biometrics-based identity management capabilities and new customers.

OBIM operates and maintains IDENT and provides expert identity services that match, store, share and analyze biometric data. OBIM provides rapid, accurate, and secure identification information to Federal Emergency Management Agency, the Transportation Security Administration, U.S. Citizenship and Immigration Services, U.S. Coast Guard, U.S. Customs and Border Protection, U.S. Immigration and Customs Enforcement, U.S. Office of Personnel Management, U.S. Secret Service, Department of Defense, Department of Justice, Department of State, the Intelligence Community, state, local, tribal, and territorial law enforcement, and foreign government partners. These services provide accurate and actionable information to customers who determine visa issuance and admissibility into the United States, establish eligibility for immigration benefits, conduct background checks, issue credentials, take law enforcement actions with potential homeland security implications, verify identity of persons associated with matters of national security, conduct intelligence and trend analysis, and grant access to sensitive facilities.

As an authoritative biometric identity service provider, OBIM has cross-cutting responsibility to serve and coordinate with DHS components and other Federal agencies. To ensure an enduring working relationship with its customers, OBIM utilizes the Executive Stakeholder Board to coordinate and collaborate with customers.

Biometric Identity Management – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$52,800**	**$40,100**	**$20,000**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$21,852	$40,100
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$52,800**	**$61,952**	**$60,100**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$52,800**	**$61,952**	**$60,100**
Obligations (Actual/Projections/Estimates)	$30,948	$14,900	$40,100
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Biometric Identity Management – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$52,800**
FY 2018 President's Budget	-	-	**$40,100**
FY 2019 Base Budget	-	-	**-**
Homeland Advanced Recognition Technology Investment	-	-	$20,000
Total Investment Elements	-	-	**$20,000**
FY 2019 Request	-	-	**$20,000**
FY 2018 TO FY 2019 Change	-	-	**($20,100)**

Biometric Identity Management – PPA
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.2 Other Services from Non-Federal Sources	$11,100	-	-	-
31.0 Equipment	$41,700	$40,100	$20,000	($20,100)
Total - Non Pay Object Classes	**$52,800**	**$40,100**	**$20,000**	**($20,100)**

Biometric Identity Management – PPA
Capital Investments Exhibits

Capital Investments

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Homeland Advanced Recognition Technology (HART)	024-000009560	1	Procurement	IT	Yes	$52,800	$40,100	$20,000

IDENT/Homeland Advanced Recognition Technology – PPA Level II

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Homeland Advanced Recognition Technology (HART)	$52,800	$40,100	$20,000	($20,100)
Total	**$52,800**	**$40,100**	**$20,000**	**($20,100)**
Discretionary - Appropriation	$52,800	$40,100	$20,000	($20,100)

The FY 2019 President's Budget includes $20.0M for Increment 4 for the HART program.

With this funding, HART will address new and emergent capability gaps to meet baseline and new customer mission needs. These gaps include the inability to meet capacity and customer mission requirements, increased accuracy of biometric matching results, increased IT security and privacy protections, greater interoperability with other biometric systems and databases (such as the Department of Justice's Next Generation Identification System, the Department of Defense's Automated Biometric Identification System, etc.), and improved performance and availability.

HART will also address the mission failure risk of the legacy IDENT system, operations and maintenance cost inefficiencies, improve detection and derogatory information matching, and provide multimodal biometric services. HART data and analysis will secure and protect the U.S. against terrorism, enable data integration and analysis, support and strengthen responsive immigration processing system and law enforcement, minimize disruptions to the trade and travel system, and support a smarter, stronger border by enhancing our security infrastructure through support of new technologies.

HART will be developed in four overlapping increments. Each increment is described as follows:

- **Increment 1** includes the core foundational infrastructure necessary to operate HART. This includes the system hardware, data re-architecture, business workflow and business rules management capabilities, biometric middleware, data management, and baseline (existing) system functionality. Test environments established include the initial establishment of a Performance Test Environment. Increment 1 is required to establish the framework and system architecture, system components, and baseline system functionality and data (including existing limited-scale facial and iris matching) for HART.

- **Increment 2** includes the addition of production-scaled iris and facial biometric modalities, multi-modal fusion capabilities, and the completion of the full Performance Test Environment. Also included is the initial establishment of the data warehouse and data mart. Increment 2 is needed to provide additional biometric capabilities to HART to meet customer needs and provide increased multi-modal biometric interoperability with agency partners.

- **Increment 3** includes the addition of a Web portal and person-centric capabilities for HART. Increment 3 is required to improve the accessibility of the system via a Web portal for system customers, and to provide a holistic view of identities to assist customer adjudication and decision making related to access, credentials, or benefits.

- **Increment 4** includes additional tools and capabilities to biometrically verify candidates, perform analyses and reporting based on the data warehouse and data mart established in Increment 2, support biometric examiner multi-modal biometric analyses and decision making, support derogatory information case management, and increase the interoperability of the system. Increment 4 is necessary for improved immigration and law enforcement data analysis, improved reporting capabilities and timeliness, and reduced traveler inconvenience.

Increments 1 through 3 are to be completed with prior year PC&I appropriations. With the FY 2019 funding, the Increment 4 capabilities described above will help to secure and protect the U.S. against terrorism; support and strengthen responsive immigration and law enforcement efforts; minimize disruptions to the Nation's trade and travel systems; and support a smarter, stronger border by enhancing our security infrastructure through use of new technologies.

IDENT/Homeland Advanced Recognition Technology – PPA Level II
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$52,800**	**$40,100**	**$20,000**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$21,852	$40,100
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$52,800**	**$61,952**	**$60,100**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$52,800**	**$61,952**	**$60,100**
Obligations (Actual/Projections/Estimates)	$30,948	$14,900	$40,100
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

IDENT/Homeland Advanced Recognition Technology – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$52,800**
FY 2018 President's Budget	-	-	**$40,100**
FY 2019 Base Budget	-	-	**-**
Homeland Advanced Recognition Technology Investment	-	-	$20,000
Total Investment Elements	-	-	**$20,000**
FY 2019 Request	-	-	**$20,000**
FY 2018 TO FY 2019 Change	-	-	**($20,100)**

IDENT/Homeland Advanced Recognition Technology – PPA Level II
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.2 Other Services from Non-Federal Sources	$11,100	-	-	-
31.0 Equipment	$41,700	$40,100	$20,000	($20,100)
Total - Non Pay Object Classes	**$52,800**	**$40,100**	**$20,000**	**($20,100)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Equipment and Other Services from Non-Federal Sources	$52,800	$40,100	$20,000	($20,100)
Total – Non Pay Cost Drivers	$52,800	$40,100	$20,000	($20,100)

Non Pay Narrative

HART Investment Cost – To provide addition core biometric identity management services, while planning for additional biometrics-based identity management capabilities and new customers.

IDENT/Homeland Advanced Recognition Technology – PPA Level II
Capital Investments Exhibits
Capital Investments

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Homeland Advanced Recognition Technology (HART)	024-000009560	1	Procurement	IT	Yes	$52,800	$40,100	$20,000

Homeland Advanced Recognition Technology (HART) – Investment

Capital Investments Exhibits
Procurement/Acquisition Programs

Homeland Advanced Recognition Technology (HART)
Procurement, Construction, and Investments Funding

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Homeland Advanced Recognition Technology (HART)	024-000009560	1	Procurement	IT	Yes	$52,800	$40,100	$20,000

Investment Description

The HART system replaces the legacy IDENT system with improved, efficient and more cost effective biometric identity services capabilities. The value to DHS of having a single authoritative biometric system, used across all DHS components and missions, is proven in both the effectiveness of the identifications that result from data sharing, and in the efficiency of having one system instead of many. HART will, at FOC, support 250 million unique identities and 720,000 daily fingerprint transactions (versus IDENT's current 350,000 daily fingerprint transactions). HART will also provide the ability to perform a full gallery search in 10 seconds (versus IDENT's current ability to perform a search of a gallery of identities with derogatory information – a subset of the full gallery – in 10 seconds). Further, HART will include additional multimodal biometric services, including multimodal fusion, providing increased accuracy, and the ability to support future modalities.   Because of HART's modernized architecture, the system will be more scalable and flexible, to meet DHS and mission partner needs, both in the near term and over time.

Justification

HART Increment 4 will provide additional capabilities to biometrically verify candidates, perform analyses and reporting based on the data warehouse and data mart established in Increment 2, support biometric examiner multi-modal biometric analyses and decision making, support derogatory information case management, and increase the interoperability of the system. These capabilities will benefit HART users in the following ways:
- OBIM Biometric Examiners, who need to review multi-modal biometrics and make identity decisions, will be provided a single biometric verification tool accessible from the HART Portal. The tool will seamlessly integrate with HART Service workflows, improving examiner efficiency and effectiveness by offering a single-access to all HART biometrics and data,
- OBIM analysts and authorized external users will receive the ability to obtain standard and on-demand reports and perform analysis of HART data. Through this capability, OBIM will provide greater responsiveness to the user community, enabling them to formulate their own searches, reduce their reliance on OBIM analysts, and reduce response times.

FY 2017 Key Milestone Events

- HART Increments 1 and 2 contract awarded September 28, 2017

FY 2018 Planned Key Milestone Events

- Begin Increment 1 Implementation
- Begin Increment 2 Implementation

FY 2019 Planned Key Milestone Events

- Increment 1 Acquisition Decision Event (ADE) 2C
- Increment 1 Initial Operational Capability
- Commit Increment 3 funding in preparation for RFP release

Overall Investment Funding

	Prior Years	FY 2017	FY 2018	FY 2019
Operations and Support		$163,475	$150,603	$160,691
Procurement, Construction, and Improvements		$52,800	$40,100	$20,000
Research and Development		-	-	-
Project Funding	-	$216,275	$190,703	$180,691
Obligations	-	$100,875		
Expenditures	-	$87,457		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
TBD							

Significant Changes to Investment since Prior Year Enacted

- FY 2017 - HART Increments 1 and 2 contract awarded September 28, 2017.
- FY 2018 - HART Award protested October 2017.
- FY 2018 – Government Accountability Office dispensation expected January 2018.

Investment Schedule

Description	Design Work		Project Work	
	Initiated	**Completed**	**Initiated**	**Completed**
FY 2017				
HART Increment 1 and 2		09/17		
FY 2018				
Begin Increment 1 Implementation	03/18			
Begin Increment 2 Implementation	03/18			
FY 2019				
Increment 1 ADE-2C	09/18			
Increment 1 Initial Operational Capability	09/18			
Commit Increment 3 funding in preparation of RFP release	03/18			

Integrated Operations Assets and Infrastructure -PPA

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Modeling Capability Transition Environment	-	$500	-	($500)
Total	**-**	**$500**	**-**	**($500)**
Discretionary - Appropriation	-	$500	-	($500)

The FY 2019 President's Budget does not include funding for the Integrated Operations Assets and Infrastructure PPA.

The Modeling Capability Transition Environment (MCTE) program is an IT environment that analysts can integrate, refine and run analytical models, run simulations, and perform geospatial and calculated analyses in a risk analytics workflow system, allowing analysts to systematically integrate risk analytical models to create an automated workflow system for infrastructure modeling. It allows for the deployment of an automated workflow system in an environment that OCIA performers can access and run their own risk analysis within an automated workflow system. This capability allows OCIA to perform a wide variety of risk analysis while providing a single integrated environment, reduced analytical time frames, and providing more accurate model results. Following the procurement of IT software licenses to enable an IOC for MCTE in FY 2018, the O&S appropriation will fund government FTE costs and maintenance for the MCTE project in FY 2019.

Integrated Operations Assets and Infrastructure – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	-	**$500**	-
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	-	**$500**	-
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	-	**$500**	-
Obligations (Actual/Projections/Estimates)	-	$500	-
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Integrated Operations Assets and Infrastructure – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	-
FY 2018 President's Budget	-	-	**$500**
FY 2019 Base Budget	-	-	**$500**
Transfer to O&S from PC&I for Modeling Capability Transition Environment (MCTE)	-	-	($500)
Total Transfers	-	-	**($500)**
Total Adjustments-to-Base	-	-	**($500)**
FY 2019 Request	-	-	-
FY 2018 TO FY 2019 Change	-	-	**($500)**

Integrated Operations Assets and Infrastructure - PPA
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
31.0 Equipment	-	$500	-	($500)
Total - Non Pay Object Classes	**-**	**$500**	**-**	**($500)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
MCTE Equipment	$0	$500	$0	($500)
Total – Non Pay Cost Drivers	**$0**	**$500**	**$0**	**($500)**

MCTE Investment Cost – No funds are included for this program in the PC&I account in the FY 2019 President's Budget. Following the procurement of IT software licenses to enable an IOC for MCTE in FY 2018, the O&S appropriation will fund government FTE costs and maintenance for the MCTE project in FY 2019.

Integrated Operations Assets and Infrastructure – PPA
Capital Investments Exhibits
Capital Investments

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Modeling Capability Transition Environment	Not assigned at this time	Non-Major	Procurement	IT	No	-	$500	-

Modeling Capability Transition Environment (MCTE) – Investment

Capital Investments Exhibits

Procurement/Acquisition Programs

Modeling Capability Transition Environment (MCTE)
Procurement, Construction, and Investments Funding

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Modeling Capability Transition Environment	Not assigned at this time	Non-Major	Procurement	IT	No	-	$500	-

Investment Description

IT environment that analysts can integrate, refine and run analytical models, run simulations, and perform geospatial and calculated analyses in a risk analytics workflow system.

Justification

No funds are included for this program in the PC&I account in the FY 2019 President's Budget. Following the procurement of IT software licenses to enable an IOC for MCTE in FY 2018, the O&S appropriation will fund government FTE costs and maintenance for the MCTE project in FY 2019.

FY 2017 Key Milestone Events

- N/A

FY 2018 Planned Key Milestone Events

- ADE 2A Decision Event
- ADE 2B Decision Event

FY 2019 Planned Key Milestone Events

- N/A

Overall Investment Funding

	Prior Years	FY 2017	FY 2018	FY 2019
Operations and Support		-		$500
Procurement, Construction, and Improvements		-	$500	-
Research and Development		-	-	-
Project Funding	-	-	$500	$500
Obligations	-	-		
Expenditures	-	-		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
TBD							

Significant Changes to Investment since Prior Year Enacted

Contracts have not been awarded.

Investment Schedule

Description	Design Work		Project Work	
	Initiated	**Completed**	**Initiated**	**Completed**
FY 2017				
FY 2018				
ADE 2A/2B			05/01/18	05/30/18
Procurement of Fed RAMP IT Architecture and Labor			06/25/18	09/26/18
Procurement and Licenses			06/25/18	09/26/18
FY 2019				

Severable Items

Element/Item	Prior Years	FY 2017	FY 2018	FY 2019
Licenses			$200	
FedRAMP IT Infrastructure			$200	
Labor			$100	

Infrastructure Protection – PPA

Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Protection (IP) Gateway	-	$4,219	$4,787	$568
Total	**-**	**$4,219**	**$4,787**	**$568**
Discretionary - Appropriation	-	$4,219	$4,787	$568

The FY 2019 President's Budget includes $4.8M for the Infrastructure Protection (IP) PPA.

The Infrastructure Protection (IP) program leads and coordinates national programs and policies on critical infrastructure security and resilience developing strong partnerships across the government and private sector.

The IP Gateway system provides a secure, encrypted, controlled-access web interface to a suite of specialized tools to DHS Components, Federal agencies, state, local, tribal, and territorial governments, and owner/operators of the Nation's critical infrastructure. A consistent assessment methodology supports asset-to-asset comparisons, robust analytics, and cross-government sharing of critical infrastructure information. Textual and geospatial presentations aid user understanding of the underlying data.

Infrastructure Protection – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	-	**$4,219**	**$4,787**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	-	**$4,219**	**$4,787**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	-	**$4,219**	**$4,787**
Obligations (Actual/Projections/Estimates)	-	$4,219	$4,787
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Infrastructure Protection – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	-
FY 2018 President's Budget	-	-	**$4,219**
FY 2019 Base Budget	-	-	-
Transfer to PC&I from O&S for Infrastructure Info and Sensitive Data Protection	-	-	$2,320
Total Transfers	-	-	**$2,320**
Total Adjustments-to-Base	-	-	**$2,320**
Infrastructure Protection Gateway Investment	-	-	$2,467
Total Investment Elements	-	-	**$2,467**
FY 2019 Current Services	-	-	**$4,787**
FY 2019 Request	-	-	**$4,787**
FY 2018 TO FY 2019 Change	-	-	**$568**

Infrastructure Protection – PPA
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.3 Other Goods and Services from Federal Sources	-	$4,219	$4,787	$568
Total - Non Pay Object Classes	**-**	**$4,219**	**$4,787**	**$568**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers Dollars in Thousands	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Other Goods and Services from Federal Sources	-	$4,219	$4,787	$568
Total – Non Pay Cost Drivers	**-**	**$4,219**	**$4,787**	**$568**

IP Gateway Investment Cost –
This increase fully funds this critical investment activity and ensures that the funding level is aligned with the requirements of the current LCCE.

Infrastructure Protection – PPA
Capital Investments Exhibits
Capital Investments

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Infrastructure Protection (IP) Gateway	024-000009567	3	Procurement	IT	No	-	$4,219	$4,787

Infrastructure Protection (IP) Gateway – Investment

Capital Investments Exhibits
Procurement/Acquisition Programs

(Infrastructure Protection (IP) Gateway)
Procurement, Construction, and Investments Funding

Investment *(Dollars in Thousands)*	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget
Infrastructure Protection (IP) Gateway	024-000009567	3	Procurement	IT	No	-	$4,219	$4,787

Investment Description
The IP Gateway supports DHS in meeting its mission of assessing key assets (e.g., bridge, power grid, dam, and subways) and critical infrastructure vulnerabilities and taking action to mitigate vulnerabilities, enhance security, and ensure continuity and necessary redundancy. The IP Gateway, which is NPPD's voluntary IT system, ensures there is a single, centrally-managed repository which enables the collection, visualization, storage, retrieval, search, and manipulation of critical infrastructure information.

Justification
Funding for the IP Gateway will continue to enhance capabilities in alignment with industry technical advancements and address customer feedback to improve the collection, management, visualization and assessment of complex infrastructure information such as dependencies and interdependencies, combined physical and cyber security and resilience risk, and cascading impacts. This funding will enable the development and implementation of data analytics. Through enhanced data analytic capabilities, the program will be able to support enhanced risk analysis and display of risk/vulnerability reduction (dashboards), enable integrated reporting to support steady state and incident response, and focus programmatic efforts through informed decision-making. New developmental activities are anticipated to take 18 months from the receipt of funding to implement the solution.

The DHS Systems Engineering Life Cycle (SELC) is the same for all IT projects and contains those milestones that are listed below. The projects that are planned to be undertaken with FY 2018 PC&I funding are the planning/design activities and first release of the redesign of the Special Events and Domestic Incidents Tracker (SEDIT), development of a Categorical Inclusion Application, and expansion of the Dependency capabilities to additional sectors. The projects that are planned to be undertaken with FY 2019 PC&I funding are planning and engineering activates to migrate the IP Gateway to a Cloud environment, development of additional data analytic capabilities, development of course materials for a train-the-trainer type of course, and the completion of the SEDIT re-design activities.

FY 2017 Key Milestone Events

- N/A

FY 2018 Planned Key Milestone Events

- Initiation of Planning and Solutions Engineering
- Release Planning Review
- Initial Operational Capability
- Iterative Releases of Improved Capabilities
- Final Operational Capability

FY 2019 Planned Key Milestone Events
- Initiation of Planning and Solutions Engineering
- Release Planning Review
- Initial Operational Capability
- Iterative Releases of Improved Capabilities
- Full Operational Capability

Overall Investment Funding

	Prior Years	FY 2017	FY 2018	FY 2019
Operations and Support	-	$14,945	$18,479	$18,744
Procurement, Construction, and Improvements		-	$4,219	$4,787
Research and Development		-	-	-
Project Funding	-	$14,945	$22,698	$23,531
Obligations	-	$7,330		
Expenditures	-	$7,615	-	

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
TBD (New Contracts)	TBD	TBD	TBD	TBD	TBD	No	TBD

Significant Changes to Investment since Prior Year Enacted

No significant changes to the investment.

Investment Schedule

Description	Design Work		Project Work	
	Initiated	**Completed**	**Initiated**	**Completed**
FY 2017				
N/A				
FY 2018				
Planning and Solutions Engineering of Functional Requirements	10/18	01/18		
Release Planning Review (RPR) of First Release	01/18	07/18		
Initial Operating Capability (IOC)			10/18	07/18
Iterative Releases / RPR			07/18	07/19
Final Operating Capability			10/18	07/19
FY 2019				
Planning and Solutions Engineering of Functional Requirements	10/19	01/19		
Release Planning Review (RPR) of First Release	01/19	07/19		
Initial Operating Capability (IOC)			10/19	07/19
Iterative Releases / RPR			07/19	07/20
Final Operating Capability			10/19	07/20

Department of Homeland Security
National Protection and Programs Directorate
Research and Development

Fiscal Year 2019
Congressional Justification

Table of Contents

Research and Development
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cybersecurity	-	-	$2,030	-	-	$4,695	-	-	$41,416	-	-	$36,721
Infrastructure Protection	-	-	$4,439	-	-	$2,431	-	-	$2,431	-	-	-
Integrated Operations R&D	-	-	-	-	-	$4,000	-	-	$4,000	-	-	-
Total	**-**	**-**	**$6,469**	**-**	**-**	**$11,126**	**-**	**-**	**$47,847**	**-**	**-**	**$36,721**
Subtotal Discretionary - Appropriation	-	-	$6,469	-	-	$11,126	-	-	$47,847	-	-	$36,721

The National Protection and Programs Directorate's (NPPD) Research and Development (R&D) appropriation includes funds necessary to support the search for new or refined knowledge and ideas, and for the application or use of such knowledge and ideas for the development of new or improved products and processes. Projects supported by R&D funds are expected to maintain or increase national economic productive capacity, while simultaneously developing federal programs and services so that they take advantage of the most up to date technology and methodology provided by the private sector. Activities are organized according to the following program/project/activity (PPA) structure:

- **Cybersecurity:** The Cybersecurity R&D program oversees the development and application of research and standards to ensure reliable, interoperable and effective NPPD technologies and processes. The program works to ensure NPPD cyber activities remain abreast of leading-edge cybersecurity defense capabilities in order to maintain and advance computer security preparedness and response to cyberattacks and incidents. Specific emphasis is placed on cybersecurity and NPPD's role in addressing challenges by collaborating with Federal departments and agencies to address cybersecurity risks, opportunities, and solutions on cyber issues with public and private sector partners.

- **Infrastructure Protection:** The Infrastructure Protection program leads and coordinates national programs and policies on critical infrastructure security and resilience and develops strong partnerships across government and the private sector. The program conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners and operators and state, local, tribal, and territorial partners understand and address risks to critical infrastructure. Additionally, it provides information on emerging threats and hazards, and offers tools and training to partners to help them manage risks to critical infrastructure.

- **Integrated Operations R&D:** The Integrated Operations R&D program funds research and development activities conducted by the Office of Cyber and Infrastructure Analysis (OCIA) to develop capabilities to model, simulate, and conduct other advanced analytics of disruptions to cyber and infrastructure networks.

Research and Development
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$6,469**	**$11,126**	**$47,847**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$16	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$6,469**	**$11,142**	**$47,847**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$6,469**	**$11,142**	**$47,847**
Obligations (Actual/Projections/Estimates)	$6,453	$11,142	$31,281
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Research and Development
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$6,469**
FY 2018 President's Budget	-	-	**$11,126**
FY 2019 Base Budget	-	-	**$11,126**
FY 2019 Current Services	-	-	**$11,126**
Research and Development for Cybersecurity	-	-	$36,721
Total, Program Increases	-	-	**$36,721**
FY 2019 Request	-	-	**$47,847**
FY 2018 TO FY 2019 Change	-	-	**$36,721**

Research and Development
Justification of Program Changes

Program Changes	FY 2019 President's Budget		
(Dollars in Thousands)	Positions	FTE	Amount
Program Change 1 - Research and Development for Cybersecurity	**-**	**-**	**$36,721**
Cybersecurity	-	-	$36,721
Total Program Changes	**-**	**-**	**$36,721**

Program Change 1 – Research and Development for Cybersecurity

Description: The FY 2019 President's Budget requests an increase of $37M for the Cybersecurity program to expand the research and development lifecycle in the advancement of next generation cybersecurity tools.

Justification: This program increase will allow for the development and application of standards, specifications, and architectures to ensure reliable, interoperable and effective technologies and processes as well as identify innovative solutions to fill mission-need gaps and define future technology roadmaps. This request will support NPPD's near- and long-term efforts in technology and support of the government's network landscape; it will improve situational awareness of government data that resides both in the cloud environment and in encrypted traffic. The request will assist in NPPD's ability to identify and respond to cyber-attacks by integrating and leveraging all the data points available through the currently available rich data sets that are currently stove-piped, and increase NPPD's ability to support Emergency Communications cyber-attack response and preparedness.

Performance: This is will be accomplished through working closely with cybersecurity partners and standard-setting organizations that support engagements with other Departments and agencies, as well as private industry, to facilitate the assessment and development of draft specifications of requirements. Specific emphasis will be placed on cybersecurity and NPPD's role in addressing challenges to cybersecurity risks, opportunities, and solutions on cyber issues.

Research and Development
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cybersecurity	$2,030	$4,695	$41,416	$36,721
Infrastructure Protection	$4,439	$2,431	$2,431	-
Integrated Operations R&D	-	$4,000	$4,000	-
Total	**$6,469**	**$11,126**	**$47,847**	**$36,721**
Discretionary - Appropriation	$6,469	$11,126	$47,847	$36,721

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.1 Advisory and Assistance Services	$1,638	$3,807	$40,528	$36,721
25.2 Other Services from Non-Federal Sources	-	$888	$888	-
25.3 Other Goods and Services from Federal Sources	$379	$4,000	$4,000	-
25.5 Research and Development Contracts	$4,452	$2,431	$2,431	-
Total - Non Pay Object Classes	**$6,469**	**$11,126**	**$47,847**	**$36,721**

Cybersecurity – PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cybersecurity	-	-	$2,030	-	-	$4,695	-	-	$41,416	-	-	$36,721
Total	**-**	**-**	**$2,030**	**-**	**-**	**$4,695**	**-**	**-**	**$41,416**	**-**	**-**	**$36,721**
Subtotal Discretionary - Appropriation	-	-	$2,030	-	-	$4,695	-	-	$41,416	-	-	$36,721

The FY 2019 President's Budget includes $41.4M for the Cybersecurity PPA in the R&D appropriation.

The Cybersecurity PPA includes funds necessary to oversee the development and application of standards, specifications, and architectures to ensure reliable, interoperable and effective technologies and processes, and identifies innovative solutions to fill mission-need gaps and define future technology roadmaps. The NPPD's Office of Cybersecurity and Communications (CS&C) works closely with cybersecurity partners and standard-setting organizations supporting engagements with other Departments and agencies, as well as private industry to facilitate the assessment and development of draft specifications of requirements. Specific emphasis is placed on cybersecurity and NPPD's role in addressing challenges to cybersecurity risks, opportunities, and solutions on cyber issues, along with:

- Accelerating the identification, development, and industry adoption of technology, standards, specifications and architectures that enable and foster information sharing, improve the effectiveness of security solutions, and promote rapid technology innovation adoption.

- Identifying, evaluating, developing, integrating, and supporting the standards, specifications, and architectures that enable rapid insertion and integration of existing, as well as future, cyberspace defense technologies and infrastructures (to include communications infrastructure).

- Engagements with other departments and agencies, as well as industry, to facilitate the development of draft standards/specifications/ architectures of immediate need in the areas of cybersecurity detection, protection, situational awareness and advanced analytics. In addition, these activities will support proofs-of-concept of the draft standards and specifications through agile experimentation and piloting activities, which will drive, influence, and shape the Information Technology market towards the development of more secure and interoperable solutions and services, as well as standards evolution.

Cybersecurity – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$2,030**	**$4,695**	**$41,416**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$2,030**	**$4,695**	**$41,416**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$2,030**	**$4,695**	**$41,416**
Obligations (Actual/Projections/Estimates)	$2,030	$4,695	$24,850
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Cybersecurity – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$2,030**
FY 2018 President's Budget	-	-	**$4,695**
FY 2019 Base Budget	-	-	**$4,695**
FY 2019 Current Services	-	-	**$4,695**
Research and Development for Cybersecurity	-	-	$36,721
Total, Program Increases	-	-	**$36,721**
FY 2019 Request	-	-	**$41,416**
FY 2018 TO FY 2019 Change	-	-	**$36,721**

Cybersecurity - PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Cybersecurity	$2,030	$4,695	$41,416	$36,721
Total	**$2,030**	**$4,695**	**$41,416**	**$36,721**
Discretionary - Appropriation	$2,030	$4,695	$41,416	$36,721

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.1 Advisory and Assistance Services	$1,638	$3,807	$40,528	$36,721
25.2 Other Services from Non-Federal Sources	-	$888	$888	-
25.3 Other Goods and Services from Federal Sources	$379	-	-	-
25.5 Research and Development Contracts	$13	-	-	-
Total - Non Pay Object Classes	**$2,030**	**$4,695**	**$41,416**	**$36,721**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Proactive Cyber Protection - Chief Technology Officer	$2,030	$4,695	$41,416	$36,721
Total – Non Pay Cost Drivers	**$2,030**	**$4,695**	**$41,416**	**$36,721**

NON PAY NARRATIVE

- The FY 2019 funding increase of $36.7M represents the cost of new R&D that will be performed by NPPD to develop next generation cybersecurity tools to be made available for Federal Government and private sector use.

Cybersecurity – PPA
Research and Development
Technology Readiness Level Exhibit

Project Description: Architecture and Standards ($4.7M)

The FY 2019 President's Budget includes $4.7M to support the collection of R&D requirements from CS&C stakeholders and the identification of federally funded research projects that can satisfy NPPD's R&D requirements. The role of protecting and securing cyberspace within NPPD's mission area requires cutting edge techniques, processes, systems, and strategies. This presents an incredible challenge in a constantly changing environment and ever-present threat of attack.

- **Problem:** There is a need for a cohesive effort across the Federal Government and its stakeholders to address cybersecurity risks, opportunities, and solutions on cyber issues. This can be done by discovering and implementing new or refined knowledge and ideas for the development of new or improved products and processes. Areas of interest and collaboration include development of standards and information sharing specifications, adoption of new technologies and industry-standard processes, and cyber architecture specifications and future planning. This effort will provide a roadmap for new and innovative approaches to address future capabilities for Automated Information Sharing (AIS) and the Continuous Diagnostics and Mitigation (CDM) Program.

- **Solution:** The following efforts identified by stakeholders will be performed during FY 2019 to address cyber issues:
    - Build CS&C Future Capabilities Architecture
    - Develop Integrated Adaptive Cyber Defense (IACD) specifications
    - Develop a 5-year Threat Landscape analysis paper
    - Identify gaps in current cybersecurity capabilities prioritized based on threat and risk

- **Impact:** This effort will support NPPD's near and long term changes in technology and the Government's network landscape by addressing future AIS and CDM capabilities to combat the rapidly changing cybersecurity landscape.

Type of Research
- Basic

Technical Readiness Level
- Level 6

Transition Plans
- The research would transition into existing capabilities as appropriate.

Project Description: R&D Requirements Gathering and Prioritization ($1.2M)

The FY 2019 President's Budget includes $1.2M to support R&D requirements gathering and prioritization.

- **Problem**: There are currently gaps in technical requirements that need to be identified in order to bridge known mission gaps.

- **Solution**: NPPD will work with the R&D community to drive cybersecurity research and the development of advanced concepts and technical solutions to identified mission technology requirements. They will work with government and industry partners for candidate solutions to meet the requirements; and drive the innovation of cost effective security products, services and solutions in the cyber ecosystem. The collection of R&D requirements from CS&C stakeholders and identification of federally-funded research projects that can satisfy NPPD R&D requirements.

- **Impact:** This effort will support NPPD's near- and long-term changes in technology and the Government's network landscape by ensuring that all NPPD CS&C current programs are building capabilities that meet the future needs of the cybersecurity ecosystem.

Type of Research

- Basic

Technical Readiness Level

- Level 6

Transition Plans

- The research would transition into existing capabilities as appropriate.

Project Description: Network and Infrastructure Security R&D ($12.0M)

The FY 2019 President's Budget includes $12.0M to support targeted R&D efforts to develop toolsets for IT managers that increase network security in cloud and other multi-tenant environments.

- **Program:** Current, perimeter-based tools are not as effective for monitoring security in a multi-tenant environment and do not perform as needed in a cloud environment. In addition, encryption is adding a layer of complexity to monitoring network traffic, especially as encrypted web traffic continues to increase. In fact, most organizations and government agencies are finding that over half of the traffic on their networks is encrypted. This protects data in transit, but also hinders the ability of security monitors that scan traffic to detect potentially malicious payloads entering or exiting on a network. These challenges impact the ability of federal civilian agencies to meet federal

government policies and mandates, such as TIC and Einstein. As highlighted in the IT Modernization report, there's a paradigm shift in security capabilities as cloud computing becomes the platform for many agency applications and work flows. However, as agencies transition to the cloud, they have less visibility into the cloud infrastructure and hence limited understanding of the threats and attacks on their cloud applications and data. Many of the limitations are due to the lack of maturity of security tools in a cloud environment. It is extremely important to invest aggressively in data analytics so that various aspects of a system, or multiple systems, could provide data that would be correlated with other types of data (e.g., network packet flow data, etc.) to provide a better situational awareness of cloud traffic. Also, NPPD has identified a need for more collaboration and information sharing among organizations to better leverage the broader community's experience in combating the associated cyber threats, to include the commercial Cloud Service Providers (CSPs).

- **Solution**: Effective toolsets to provide IT managers with situational-awareness in cloud and other multi-tenant environments. This work will include the development of advanced cloud security architecture, technical concepts, and solutions. Additionally, NPPD will research alternatives to monitoring encrypted data at the network layer, and will explore open-source "turn-key" solutions for implementing bi-directional sharing and cyber defense integration of shared indicators exclusively using open source tools/platforms.

- **Impact:** This effort will improve situational awareness of government data residing in a cloud environment and encrypted traffic.

Type of Research

- Developmental

Technical Readiness Level

- Level 5

Transition Plans

- The research would transition into existing capabilities as appropriate.

Project Description: Analytics R&D ($15.0M)

The FY 2019 President's Budget includes $15.0M to support analytical tools that detect and identify botnets and other malicious behavior. Botnets are a set of bots, or software applications, which are connected and run automated scripts over the Internet. Botnets can create distributed denial of service attacks on networks or websites.

- **Problem:** The detection of botnet or other malicious behavior is not possible without significant support from threat intelligence reporting from multiple sources. Currently, there is a capability gap with respect to fusing together unstructured reporting and existing structured data at machine speed to produce a combined report for this purpose. There is also a lack of any capability to provide quick, accurate analysis of file binaries for malware discovery at scale. There is currently a gap of tools to automate and scale malware detection.

- **Solution:** Research and development of technologies to detect and identify early indications of new and continuing botnets and other malicious behavior from low-signal indicators in the data using analytics. NPPD also intends to develop analytic techniques which match vulnerable targets to known goals of threat actors to identify potential targets.

- **Impact:** This effort will improve NPPD's ability to identify cyber-attacks by leveraging all the data points available through the existing, but currently stove-piped, rich data sets.

Type of Research

- Developmental

Technical Readiness Level

- Level 5

Transition Plans

- The research would transition into existing capabilities as appropriate.

Project Description: Emergency Communications R&D ($8.5M)

The FY 2019 President's Budget includes $8.5M for R&D efforts to facilitate the sharing of information between emergency responders during critical incidents and events.

- **Problem**: Today, there are no solutions to provide strong authentication using identity management solutions (e.g. PIV, CAC, etc.) for interoperability of emergency communications systems in order to seamlessly exchange data during an incident between supporting jurisdictions. The ability to access, integrate and display images and video from the incident scene is key to facilitating the sharing of information between emergency responders during critical incidents and events.

- **Solution:** Identify and deliver new technologies supporting emergency communications functionality for U.S. commercial networks applicable to 5G plans. This effort is intended to:
    o Strengthen the ability of first response organizations to coordinate dispatch functions from multiple jurisdictions and agencies during response operations
    o Facilitate the management of communications channels and frequencies among multiple disciplines
    o Share incident-related information among agencies and disciplines during response operations using strong authentication.

- **Impact:** Communications is a designated critical infrastructure sector for which DHS is the Sector Specific Agency. This effort will increase NPPD's ability to support Emergency Communications cyber-attack response/preparedness.

Type of Research

- Developmental

Technical Readiness Level

- Level 5

Transition Plans

- The research would transition into existing capabilities as appropriate.

FY 2017 Key Milestone Events

- Developed and released interoperability and technical specifications, baseline architecture for cybersecurity tools orchestration, and active defense, in partnership with the National Security Agency (NSA).
- Continued collection of R&D requirements from NPPD stakeholders and identified federally funded research projects that can satisfy NPPD R&D requirements annually to ensure requirements meet the changes in threat and technology landscape.

FY 2018 Planned Key Milestone Events

- Finalize the cybersecurity tools orchestration Reference Architecture based on industry input and in partnership with NSA, develop plan for transitioning to industry.
- Develop a draft technical specification for playbooks and workflows for cybersecurity orchestration services, in partnership with NSA.
- Review, refine and update NPPD R&D requirements, based on new threats and technology, and work with DHS and industry research organizations to identify relevant technologies and projects that will meet NPPD R&D requirements on an annual basis.
- Develop baseline for NPPD major initiatives and create roadmap for strategic outlook of the 3-5 year technology space.
- Align NPPD initiatives into comprehensive architecture view.

FY 2019 Planned Key Milestone Events

- Draft and release long-term Technology Roadmap and Architecture Strategy.
- Continue to refine and update NPPD R&D requirements and work with DHS and industry research organizations to identify relevant (current/future) technologies and projects that will meet NPPD R&D requirements.
- Examine Best of Breed Future Roadmap of Commercial Security Capabilities.
- Develop 5-year Threat Landscape Analysis Paper.
- Build NPPD Future Capabilities Architecture.
- Identify Gaps in Current Cybersecurity Capabilities Prioritized based on Threat and Risk.
- Transition orchestration and interoperability efforts to the industry.

- Identify new NPPD R&D requirements based on DHS Strategic Plan.
- Explore open-source "turn-key" solutions to provide situational-awareness in cloud.
- Identify tools supporting emergency communications functionality for US commercial networks applicable to 5G plans.

Delayed Milestones

- N/A

Overall Project Funding

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Project Funding	-	-	$2,030	$4,695	$41,416
Obligations	-	-	$2,030	$4,695	$26,728

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion
FY 2017		
Baseline Reference Architecture for cybersecurity orchestration and active defense.	Q1 FY 2017	Q2 F 20Y17
Draft technical specification on orchestration services.	Q1 FY 2017	Q3 FY 2017
Collect R&D requirements from NPPD stakeholders.	Q3 FY 2017	Q3 FY 2017
Identify research projects that can satisfy NPPD R&D requirements.	Q4 FY 2017	Q4 FY 2017
FY 2018		
In partnership with NSA, continue the development of orchestration specifications for reference Architecture, playbooks and workflows for the purpose of transition to industry for adoption.	Q1 FY 2018	Q4 FY 2018
Build NPPD Future Capabilities Architecture, based on the changing landscape, and incorporate into the enterprise architecture roadmap. Develop requirements for new capabilities identified through the gap analysis to improve/enhance NPPD cybersecurity mission.	Q1 FY 2018	Q4 FY 2018
Collect, refine, and update cyber protection requirements and work with DHS S&T to identify relevant technologies and projects that can meet NPPD R&D requirements.	Q3 FY 2018	Q4 FY 2018
Identify Gaps in Current Cybersecurity Capabilities Prioritized based on Threat and Risk and align NPPD investments based on priority of the capabilities.	Q1 FY 2018	Q4 FY 2018
FY 2019		
Identify and evaluate standards/specifications/architectures that enable rapid insertion and integration of existing, as well as future, cyberspace defense technologies and infrastructures.	Q1 FY 2019	Q4 FY 2019
Transition strategy for the specification of the Integrated Adaptive Cyber Defense (IACD) orchestration services to the industry partners.	Q2 FY 2019	Q4 FY 2019
Engagements with other departments and agencies [(i.e., the National Adaptive Cyber Defense (NIST) and National Security Agency (NSA)], as well as industry, to facilitate the development of draft standards /specifications/architectures of immediate need in the areas of cybersecurity detection, protection, situational awareness and advanced analytics. Contribute to the standards bodies working groups in the areas related to NPPD cyber mission and building a stronger cyber eco-system.	Q1FY 2019	Q4FY 2019
Collect, refine, and update cyber security requirements and work with DHS S&T to identify relevant technologies and projects that can meet NPPD R&D requirements.	Q2 FY 2019	Q4 FY 2019

Infrastructure Protection - PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Protection	-	-	$4,439	-	-	$2,431	-	-	$2,431	-	-	-
Total	**-**	**-**	**$4,439**	**-**	**-**	**$2,431**	**-**	**-**	**$2,431**	**-**	**-**	**-**
Subtotal Discretionary - Appropriation	-	-	$4,439	-	-	$2,431	-	-	$2,431	-	-	-

The FY 2019 President's Budget includes $2.4M for the Infrastructure Protection PPA in NPPD's R&D appropriation.

The Infrastructure Protection Research and Development PPA supports research, development, and application of innovative technology for community-based critical infrastructure protection and develops a pragmatic approach for protecting critical infrastructure against terrorist attacks and other emergency situations. This program also addresses community-based critical infrastructure protection priorities and develops homeland security technologies that may be transitioned to commercialization.

Infrastructure Protection – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$4,439**	**$2,431**	**$2,431**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	$16	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$4,439**	**$2,447**	**$2,431**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$4,439**	**$2,447**	**$2,431**
Obligations (Actual/Projections/Estimates)	$4,423	$2,447	$2,431
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Infrastructure Protection – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	$4,439
FY 2018 President's Budget	-	-	$2,431
FY 2019 Base Budget	-	-	$2,431
FY 2019 Current Services	-	-	$2,431
FY 2019 Request	-	-	$2,431
FY 2018 TO FY 2019 Change	-	-	-

Infrastructure Protection – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Protection	$4,439	$2,431	$2,431	-
Total	**$4,439**	**$2,431**	**$2,431**	**-**
Discretionary - Appropriation	$4,439	$2,431	$2,431	-

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.5 Research and Development Contracts	$4,439	$2,431	$2,431	-
Total - Non Pay Object Classes	**$4,439**	**$2,431**	**$2,431**	**-**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Infrastructure Design & Recovery	$424	$423	$423	-
Positioning Navigation & Timing	$575	$570	$570	-
Technology Development and Deployment Program	$2,640	$640	$640	-
Improvised Explosive Device Precursor (IEDP)	$800	$798	$798	-
Total Non Pay Cost Drivers	**$4,439**	**$2,431**	**$2,431**	**-**

Non Pay Narrative

Infrastructure Design & Recovery – No change.

Positioning Navigation & Timing – No change.

Technology Development & Deployment Program – No change.

Improvised Explosive Device Precursor (IEDP) – No change.

Infrastructure Protection – PPA
Research and Development
Technology Readiness Level Exhibit

Project Description: Technology Development and Deployment Program (TDDP) ($0.6M)

The FY 2019 President's Budget includes $0.6M to support cutting edge research to strengthen infrastructure security and resilience.

- **Problem:** There is a need for a unique and innovative program that conducts cutting edge research and uses that research to advance proof of concepts focused on innovative infrastructure security and resilience.

- **Solution:** Initiative selections are made via a competitive process through which members of the critical infrastructure partnership structure can propose knowledge gaps that require funding. These proof of concepts can then be brought to market and disseminated broadly to support the critical infrastructure community. Initiatives are, in part, selected based on the capability of the proposed research and development to benefit a broad range of critical infrastructure community members, enabling small amounts of funding to achieve substantial benefits. TDDP activities will provide funding for the 2018 NIPP Security and Resilience Challenge process as well as selected research projects. The NIPP Security and Resilience Challenge process will be implemented by the National Institute of Hometown Security and the selected research will be performed by the selected research performers. This funding amount will also help to fund other research initiatives and requirements from NPPD.

- **Impact:** TDDP projects funded via the competitive process described above have already made impact. Examples include development of a shared public/private common operating pictures and supporting systems which have been used during the Hurricane Harvey response; expanded capability to monitor cyber security for smaller utilities; and substantial progress in establishing emergency services voluntary standards. Additionally, ability of council members to participate in the nomination and selection of proposed research gaps has increased stakeholder participation in council structures, thus increasing impact of communications and capacity building efforts.

Type of Research

- Applied

Technical Readiness Level

- Level 7

Transition Plans

- Transition plans are required for each research initiative by the selected performers to ensure the outputs can be impactful to enhance the security and resiliency of the critical infrastructure community.

Project Description: Infrastructure Development and Recovery (IDR) ($0.4M)

The FY 2019 President's Budget includes $0.4M to support the Infrastructure Development and Recovery (IDR) program. The IDR Program encourages an integrated, holistic approach to decision-making that incorporates resilient strategies, policies, and best practices and informs the planning, design, construction, and day-to-day operations of critical infrastructure. A cohesive effort across the Federal interagency community and various stakeholders – including critical infrastructure owners and operations, urban/regional planners, building safety and public works officials, academia, professional organizations, and non-profit/non-governmental organizations – is necessary to address threats and risks, opportunities, and solutions.

- **Problem:** Successful implementation of critical infrastructure security and resilience across the nation requires the promotion of cross-sector, multi-threat resilience solutions that expand the Federal government's capabilities to further the long-term security and resilience of the Nation's critical infrastructure. Accomplishing this mission presents significant challenges in an environment of constantly changing and ever-evolving threats, hazards, and risks.

- **Solution:** Working with these varied stakeholders provides a platform to discover, share, and implement best practices, knowledge, and ideas for the development of new or improved products and processes to enhance the security and resilience of critical infrastructure. Areas of interest and collaboration include the development of tools, guidance, and technical assistance offerings that support critical infrastructure security and resilience considerations in infrastructure long-term planning and investment, design, operations and maintenance, and recovery planning. The FY 2019 funds will be used to pilot a Resilience Framework that will provide a practical and flexible approach to help all communities improve their resilience by setting priorities and allocating resources to manage risks for their prevailing hazards. The Framework will have links to current guidance and tools to assist local planners.

- **Impact:** These efforts help integrate critical infrastructure security and resilience considerations into communities infrastructure long-term planning, investment, design, and recovery, which directly aligns with NPPD/IP's mission for protecting and enhancing the Nation's critical infrastructure from all threats and hazards and managing the risks to the nation's assets and systems.

Type of Research

- Applied

Technical Readiness Level

- Level 7

Transition Plans

- This research does not lead to the purchase of NPPD equipment.

Project Description: Positioning, Navigation, and Timing (PNT) ($0.6M)

The FY 2019 President's Budget includes $0.6M in funding that will enable the DHS National Critical Infrastructure PNT Project Management Office (PMO) to continue work to fully map PNT back-up requirements, and to work with the interagency and private sector to identify an appropriate backup approach. These efforts will ensure that sufficient research and analysis is available to inform federal government decisions on solutions for the backup to the Global Positioning System (GPS) issue. The PMO will also continue work with interagency partners to address known vulnerabilities in commercial GPS receivers.

- **Problem**: There are known vulnerabilities to commercial GPS receivers and an appropriate backup approach is not in place should existing solutions fail.

- **Solution**: The PMO is working with the critical infrastructure community to ensure they understand the risk associated with dependence on PNT capabilities provided by GPS. This effort will continue to develop products, programs, and mitigation strategies for critical infrastructure owners and operators. Focus areas for research and development will include the identification of emerging threats and wide ranging efforts to reduce risk through technology, procedures and policy. These efforts are conducted in coordination with private industry, interagency partners and DHS's Science and Technology Office. The PMO, in coordination with interagency partners develop standards for GPS receivers and ensure Federal agencies reliant on GPS have options to mitigate vulnerabilities.

- **Impact:** Failure to complete this work will result in decisions regarding the fielding of a backup system being based on conjecture and an incomplete understanding of requirements and market needs. Without proper oversight and planning it is likely that a backup signal may be provided but that signal will not be usable by a large segments of the community unless they invest in private infrastructure to augment the system. Investments in additional infrastructure by the private sector may assume undue risk due to broad perception that GPS will always be available.

Type of Research

- Applied

Technical Readiness Level

- Level 7

Transition Plans

- This research does not lead to the purchase of NPPD equipment

Project Description: Improvised Explosive Device Precursor (IEDP) ($0.8M)

The FY 2019 President's Budget includes $0.8M in funding to support R&D efforts on precursor chemicals used in improvised explosive devices (IED).

- **Problem:** The United States and other nations are facing concerns over the potential use of certain chemical used in IEDs for terrorist activities. There is little scientific data on many of the precursor chemicals used, and the chemicals used evolve and change over time. To stay current as an organization that is responsible for regulating security of facilities with certain chemicals, NPPD must scientifically understand and stay educated on the potential misuses of chemicals.

- **Solution:** In FY 2019 and beyond, the IP R&D PPA will continue to fund, as needed, the IEDP scientific testing effort. This will help decision-makers make informed decisions on the direction of IED-related programs. Funds will be used to continue performing small scale physical explosive testing on approximately seven (7) Appendix A Improvised Explosive Device Precursor (IEDP) chemicals. The results of this testing will provide ISCD, the Department, and our committed international partners with information that can be used to inform decision makers as it relates to the security and control of IEDP chemicals. This is a joint international testing project with global implications, the funding is the US's matching financial commitment to the project which will complement the agreed upon financial commitments from international partners.

- **Impact:** When making decisions on measures to protect against the IEDP threat, data should be available to inform those decisions. Without data, program offices involved with protecting against the IEDP threat have the potential of not having current data to make informed decisions.

Type of Research

- Applied

Technical Readiness Level

- Level 7

Transition Plans

- This research does not lead to the purchase of NPPD equipment

FY 2017 Key Milestone Events

- FY 2017 Critical Infrastructure Security and Resilience (CISR) Challenge White Paper Call.
- PNT Research Requirements.
- Interagency Security Committee – Compliance System (ISC-CS) Transition to Use.
- Completed development of Version 1 of the Infrastructure Resilience Planning Framework, corresponding Quick Guides, and associated

resources.
- Completed development of Version 1 of the Cybersecurity Quick Guide for Infrastructure Development.
- Conducted pilots of Critical Infrastructure Resilience Toolkit (CIRT), Version 1.
- Completed a revised needs assessment and develop scope for private sector-focused planning and investment decision support tools.
- Developed an initial scope for the automation and hosting of CIRT, Version 1.

FY 2018 Planned Key Milestone Events

- FY 2018 CISR Challenge White Paper Call.
- Complete FY 2017 NDAA Requirements Validation Study.
- Complete automation and hosting of CIRT, version 1.
- Complete development of version 1 of the private sector-focused infrastructure planning and investment tools and resources.

FY 2019 Planned Key Milestone Events

- FY 2019 CISR Challenge White Paper Call.
- Implement Findings of Requirement Validation Study as directed by leadership-PNT.
- Complete automation and hosting of CIRT, version 2.
- Complete development of version 2 of the Infrastructure Resilience Planning Framework, corresponding Decision Support/Quick Guides, and associated resources.
- Complete IDR interactive web site to host all IDR.

Delayed Milestones

- NA

Overall Project Funding

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Infrastructure Design & Recovery	-	$424	$424	$423	$423
Positioning Navigation & Timing	-	$865	$575	$570	$570
Technology Development and Deployment Program	-	$2,000	$2,640	$640	$640
Improvised Explosive Device Precursor (IEDP)	-	$800	$800	$798	$798
Project Funding	**-**	**$4,089**	**$4,439**	**$2,431**	**$2,431**
Obligations	**-**	**$4,089**	**$4,439**	**$2,431**	**$2,431**

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion
FY 2017		
Literature Review for Limits of Explosivity and Formulation Section	Q4 FY 2017	Q4 FY 2018
Small-scale Characterization Testing	Q4 FY 2017	Q4 FY 2018
Intermediate-scale Thermal Stability & Performance Testing	Q4 FY 2017	Q4 FY 2018
Large-scale Explosivity Testing	Q4 FY 2017	Q4 FY 2018
FY 2018		
Literature Review for Limits of Explosivity and Formulation Section	Q4 FY 2018	Q4 FY 2019
Small-scale Characterization Testing	Q4 FY 2018	Q4 FY 2019
Intermediate-scale Thermal Stability & Performance Testing	Q4 FY 2018	Q4 FY 2019
Large-scale Explosivity Testing	Q4 FY 2018	Q4 FY 2019
FY 2019		
Small-scale Characterization Testing	Q4 FY 2019	Q4 FY 2020
Intermediate-scale Thermal Stability & Performance Testing	Q4 FY 2019	Q4 FY 2020
Large-scale Explosivity Testing	Q4 FY 2019	Q4 FY 2020

Integrated Operations R&D - PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Integrated Operations R&D	-	-	-	-	-	$4,000	-	-	$4,000	-	-	-
Total	**-**	**-**	**-**	**-**	**-**	**$4,000**	**-**	**-**	**$4,000**	**-**	**-**	**-**
Subtotal Discretionary - Appropriation	-	-	-	-	-	$4,000	-	-	$4,000	-	-	-

PPA Description

The FY 2019 President's Budget provides $4.0M for the Integrated Operations PPA in NPPD's R&D appropriation.

The Integrated Operations R&D program funds research and development activities conducted by OCIA to develop capabilities to model, simulate, and conduct other advanced analytics of disruptions to cyber and infrastructure networks. These advanced analytics, conducted through the National Infrastructure Simulation and Analysis Center (NISAC), informs homeland security decision making in support of both operational efforts and strategic planning.

Integrated Operations R&D – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	-	**$4,000**	**$4,000**
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	-	**$4,000**	**$4,000**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	-	**$4,000**	**$4,000**
Obligations (Actual/Projections/Estimates)	-	$4,000	$4,000
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Integrated Operations R&D – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	-
FY 2018 President's Budget	-	-	$4,000
FY 2019 Base Budget	-	-	$4,000
FY 2019 Current Services	-	-	$4,000
FY 2019 Request	-	-	$4,000
FY 2018 TO FY 2019 Change	-	-	-

Integrated Operations R&D – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Integrated Operations R&D	-	$4,000	$4,000	-
Total	**-**	**$4,000**	**$4,000**	**-**
Discretionary - Appropriation	-	$4,000	$4,000	-

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
25.3 Other Goods and Services from Federal Sources	-	$4,000	$4,000	-
Total - Non Pay Object Classes	**-**	**$4,000**	**$4,000**	**-**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
NISAC	0	$4,000	$4,000	-
Total – Non Pay Cost Drivers	**0**	**$4,000**	**$4,000**	**-**

Non Pay Narrative

NISAC – No change.

Integrated Operations R&D – PPA
Research and Development
Technology Readiness Level Exhibit

Project Description: National Infrastructure Simulation and Analysis Center (NISAC) ($4.0M)

The FY 2019 President's Budget includes $4.0M in funding to support the National Infrastructure Simulation and Analysis Center's R&D activities.

- **Problem:** Originally designed to focus on the consequences associated with terrorist threats, OCIA's mission has broadened to encompass consequence analysis of impacts to infrastructure from all hazards. OCIA has provided support before, during, and after every major hurricane since its inception. OCIA has focused on developing modeling, simulation, and analytic capabilities for disruptions to critical infrastructure including hurricanes, earthquakes, tsunamis, floods, pandemics, industrial accidents, disruptions to the retail payment system, and weapons of mass effect. The foundational capabilities required for these analyses include geospatial hydrology models for flooding, the ability to model damage to the electric power grid, supply chains and network topologies, and infrastructure fragility modeling.

- **Solution:** OCIA leverages the advanced modeling and simulation capabilities of the Sandia and Los Alamos National Laboratories through the NISAC Program to model regional- and National-level direct and cascading impacts of disruptions to infrastructure.

- **Impact:** NISAC enables homeland security decision makers to leverage modeling and simulation capabilities to support both operational efforts and strategic planning.

Overall Project Funding

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Project Funding	$4,000	$4,000	$4,000	$4,000	$4,000
Obligations*	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**

*Funding in FY 2015 and FY 2016 was in the IPIS account and in FY 2017 was in the O&S account and appears in this table for comparison purposes only.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion
FY 2018		
Deliverables identifying methods to improve existing capabilities to model the impacts of homeland security events on infrastructure.	Q1 FY 2018	Q4 FY 2019
System prototype demonstration of an analytic workflow in a laboratory environment to assess the consequence of an electromagnetic pulse event to electric power infrastructure	Q1 FY 2018	Q4 FY 2019
Experimental proof of concept of an analytic workflow in a laboratory environment to assess the consequences of a cyber event on Federal computer networks.	Q1 FY 2018	Q4 FY 2019
FY 2019		
Deliverables identifying methods to improve existing capabilities to model the impacts of homeland security events on infrastructure.	Q1 FY 2018	Q4 FY 2019
System prototype demonstration of an analytic workflow in a laboratory environment to assess the consequence of an electromagnetic pulse event to electric power infrastructure.	Q1 FY 2018	Q4 FY 2019
Experimental proof of concept of an analytic workflow in a laboratory environment to assess the consequences of a cyber event on Federal computer networks.	Q1 FY 2018	Q4 FY 2019

Type of Research

- Developmental

Technology Readiness Level

- Level 5

Transition Plans

- This research does not lead to the purchase of NPPD equipment.

FY 2017 Key Milestone Events

- N/A

FY 2018 Planned Key Milestone Events

- Submission of deliverables identifying methods to improve existing capabilities to model the impacts of homeland security events on infrastructure.
- System prototype demonstration of an analytic workflow in a laboratory environment to model the consequence of an electromagnetic pulse event to electric power infrastructure
- Experimental proof of concept of an analytic workflow in a laboratory environment to model the consequences of a cyber event on computer networks in a repeatedly and analytically-sound way.

FY 2019 Planned Key Milestone Events

- Submission of deliverables identifying methods to improve existing capabilities to model the impacts of homeland security events on infrastructure.
- System prototype demonstration of an analytic workflow in a laboratory environment to model the consequence of an electromagnetic pulse event to electric power infrastructure
- Experimental proof of concept of an analytic workflow in a laboratory environment to model the consequences of a cyber event on computer networks in a repeatedly and analytically-sound way.

Delayed Milestones

- N/A

Department of Homeland Security
National Protection and Programs Directorate
Federal Protective Service

Fiscal Year 2019
Congressional Justification

Table of Contents

Federal Protective Service
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
FPS Operations	1,602	1,507	$368,892	1,602	1,507	$360,079	1,602	1,507	$359,196	-	-	($883)
Countermeasures	-	-	$1,082,186	-	-	$1,115,976	-	-	$1,167,914	-	-	$51,938
Total	**1,602**	**1,507**	**$1,451,078**	**1,602**	**1,507**	**$1,476,055**	**1,602**	**1,507**	**$1,527,110**	**-**	**-**	**$51,055**
Subtotal Discretionary - Offsetting Fee	1,602	1,507	$1,451,078	1,602	1,507	$1,476,055	1,602	1,507	$1,527,110	-	-	$51,055

The Federal Protective Service (FPS) provides security services to approximately 9,500 General Services Administration (GSA) owned, leased, or operated facilities in 11 regions across the country, including the Department of Homeland Security (DHS) St. Elizabeth's Campus. FPS protects Federal facilities and those who occupy them by providing integrated law enforcement and protective security services and leveraging access to the intelligence and information resources of our network of Federal, state, local, tribal, territorial, and private sector partners.

FPS, a full-cost recovery operation, provides infrastructure security and resilience against terrorist attacks, cyber events, natural disasters, other large-scale incidents that may impact Federal facilities. Secure and resilient infrastructure is essential for national security, economic vitality, and public health and safety. Critical infrastructure security and resilience efforts must address all hazards, from terrorism and other criminal activities to natural disasters to cyber-physical security threats.

FPS security services include approximately 13,500 contracted Protective Security Officers (PSOs), Technical Countermeasure (TCM) programs, and equipment. These services provide a comprehensive risk-based approach to facility protection allowing FPS to prioritize its operations to prevent, detect, assess, respond to, and disrupt criminal and other incidents endangering the Federal community.

- FPS Operations provides funding and support services for the following:

    o Salaries and Benefits for the Federal staff compensation and benefits;
    o Protective Services for Law Enforcement Operations, Investigations, Criminal Intelligence, Information Sharing, K-9 Operations, MegaCenter Operations, Critical Incidents and Special Security Operations, Fleet, and Facilities;
    o Training for Law Enforcement including entry-level training, Law Enforcement advanced and refresher training, Law Enforcement standards and certification training, and administrative training; and

- o Mission Support for Policy and Planning, Acquisition Management, Personnel Security (Background Investigations and Adjudications), Homeland Security Presidential Directive-12 (HSPD-12), Budget, Finance; and Revenue, Workforce Planning (Human Capital), Information Technology, Fleet Management, Logistics and other business support services.

- FPS Countermeasures which includes all pass-through countermeasure contracts funded by customer agencies for:
  - o Protective Security Officers (PSOs); and
  - o Technical Countermeasures (TCMs).

Statutory Authority

Section 1706 of the Homeland Security Act of 2002, codified at 40 USC 1315(a) vests in the Secretary of DHS the authority and responsibility to "protect the buildings, grounds, and property that are owned, occupied, or secured by the Federal Government;" (6 USC 203(3) & 6 USC 232(a)). The authority for FPS to recover the cost of law enforcement and security services can be found at 40 USC 586(c) (implemented at 41 CFR 102-85.135). Congress recognizes and confirms FPS' reimbursable authority in the annual appropriations.

Authorized Uses

Offsetting collections are to be used for the protection of Federally-owned and leased buildings and for the operations of the FPS.

FPS is a full-cost recovery operation, meaning all expenses incurred are funded through offsetting collections. The following five revenue sources fund all expenses associated with law enforcement, security management, and support activities:

1) *Basic Security Fee*: A charge assessed for all GSA-controlled space based on the rentable square foot. The revenue collected provides funding for statutory and regulatory service requirements from activities associated with law enforcement, threat management and information sharing, protective and criminal investigations, risk management, oversight and administration of the contracted PSOs and technical countermeasures security programs, as well as MegaCenter alarm monitoring and dispatch operations, training, and equipment.

2) *Building-Specific Security Collections:* Building-specific security collections (cost recovery) are used to implement and maintain security requirements specifically fashioned for a facility in accordance with Interagency Security Committee (ISC) standards. Building-specific security services include acquisition, oversight, and administration of PSOs, security equipment installation, operations, maintenance and repair, consultation on security fixtures, and contractor background suitability determinations.

3) *Reimbursable Agency-Specific Security Collections:* Reimbursable agency-specific security collections (cost recovery) are funded via a Security Work Authorization (SWA), or reimbursable agreement, between FPS and another Federal agency. Security services provided are similar to building-specific, but are performed for an individual customer. Reimbursable agency-specific security agreements may include other traditional reimbursable activity, such as Federal Emergency Management Administration (FEMA) mission assignments.

4) *Building-Specific Security Oversight Fee:* A security oversight fee is applied to building-specific security costs. The oversight fee funds FPS for direct and indirect costs associated with providing building-specific security. Revenue collected from the oversight fee is combined with the basic security fee and reimbursable agency-specific security fee to fund operating requirements.

5) *Reimbursable Agency-Specific Security Oversight Fee:* A security oversight fee is applied to reimbursable agency-specific security costs. The oversight fee funds FPS for direct and indirect costs associated with delivering agency-specific protective services. Revenue collected from the oversight fee is combined with the basic security fee and building-specific security oversight fee to fund operating requirements.

Revenue

For FPS, the revenues to fund its operations come from the basic security charge and oversight fee associated with providing building-specific and reimbursable agency-specific security services. FPS security charges are reviewed in the annual budget formulation process to ensure revenue and collections are sufficient to meet anticipated operational and security costs. Estimated revenue and collections are based on the number of rentable square feet in the GSA real property inventory receiving protection from FPS and the reimbursable security requested by individual Federal agencies. This forecasting methodology is a necessity for FPS, as its resource levels and security services must be in alignment in order to address the ever evolving threat environment.

The table on the following page includes a list of the planned revenue by FPS customer agency for the FY 2017 Enacted, FY 2018 President's Budget, and the FY 2019 President's Budget.

Agency / Bureau ($ in Thousands)	FY 2017				FY 2018				FY 2019			
	Operating	PSO	TCM	Total	Operating	PSO	TCM	Total	Operating	PSO	TCM	Total
Department of Homeland Security	$50,328	$224,282	$4,398	**$279,008**	$49,126	$226,377	$9,444	**$284,946**	$49,005	$237,069	$9,727	**$295,801**
Social Security Administration	$35,998	$201,216	$3,946	**$241,161**	$35,138	$203,096	$8,472	**$246,707**	$35,052	$212,688	$8,727	**$256,467**
Department of Justice	$50,313	$118,358	$2,321	**$170,991**	$49,111	$119,463	$4,984	**$173,557**	$48,990	$125,106	$5,133	**$179,229**
Department of the Treasury	$31,073	$88,207	$1,730	**$121,010**	$30,331	$89,031	$3,714	**$123,076**	$30,257	$93,236	$3,825	**$127,318**
Department of Health and Human Services	$19,511	$76,787	$1,506	**$97,804**	$19,044	$77,504	$3,233	**$99,782**	$18,998	$81,165	$3,330	**$103,493**
Judiciary	$39,028	$47,813	$938	**$87,779**	$38,096	$48,260	$2,013	**$88,369**	$38,002	$50,539	$2,074	**$90,615**
General Services Administration	$22,321	$56,299	$1,104	**$79,724**	$21,788	$56,825	$2,371	**$80,983**	$21,735	$59,509	$2,442	**$83,685**
Department of Veterans Affairs	$7,942	$25,129	$493	**$33,564**	$7,753	$25,364	$1,058	**$34,174**	$7,734	$26,562	$1,090	**$35,385**
Environmental Protection Agency	$7,074	$25,387	$498	**$32,959**	$6,905	$25,624	$1,069	**$33,599**	$6,889	$26,834	$1,101	**$34,824**
Department of Agriculture	$11,784	$20,709	$406	**$32,900**	$11,503	$20,903	$872	**$33,277**	$11,474	$21,890	$898	**$34,263**
Department of Defense	$8,433	$18,433	$361	**$27,227**	$8,231	$18,605	$776	**$27,612**	$8,211	$19,484	$799	**$28,494**
Department of the Interior	$12,011	$13,681	$268	**$25,960**	$11,724	$13,809	$576	**$26,109**	$11,695	$14,461	$593	**$26,750**
Department of Commerce	$9,577	$14,650	$287	**$24,514**	$9,348	$14,787	$617	**$24,752**	$9,325	$15,485	$635	**$25,446**
Agency for International Development	$1,872	$14,925	$293	**$17,089**	$1,827	$15,064	$628	**$17,520**	$1,823	$15,775	$647	**$18,246**
Corps of Engineers--Civil Works	$4,350	$12,411	$243	**$17,005**	$4,246	$12,527	$523	**$17,296**	$4,236	$13,119	$538	**$17,893**
Department of Labor	$5,702	$11,068	$217	**$16,987**	$5,566	$11,171	$466	**$17,203**	$5,552	$11,699	$480	**$17,731**
Department of Transportation	$6,055	$9,818	$193	**$16,066**	$5,911	$9,910	$413	**$16,234**	$5,896	$10,378	$426	**$16,700**
Nuclear Regulatory Commission	$1,931	$11,876	$233	**$14,040**	$1,885	$11,987	$500	**$14,372**	$1,880	$12,553	$515	**$14,948**
Department of Education	$2,122	$9,267	$182	**$11,570**	$2,071	$9,353	$390	**$11,815**	$2,066	$9,795	$402	**$12,263**
Independent US Government Offices	$2,397	$8,474	$166	**$11,037**	$2,339	$8,553	$357	**$11,249**	$2,334	$8,957	$368	**$11,658**
Department of Defense - Army	$3,880	$6,618	$130	**$10,628**	$3,788	$6,680	$279	**$10,746**	$3,778	$6,995	$287	**$11,061**
Department of Housing and Urban Development	$3,756	$5,905	$116	**$9,777**	$3,667	$5,960	$249	**$9,875**	$3,658	$6,241	$256	**$10,155**
Department of Energy	$5,335	$3,162	$62	**$8,560**	$5,208	$3,192	$133	**$8,533**	$5,195	$3,343	$137	**$8,675**
Department of State - Department of State	$6,422	$1,883	$37	**$8,342**	$6,269	$1,901	$79	**$8,249**	$6,253	$1,991	$82	**$8,325**
National Archives and Records Administration	$4,579	$3,403	$67	**$8,048**	$4,469	$3,435	$143	**$8,047**	$4,458	$3,597	$148	**$8,203**
Small Business Administration	$1,482	$4,116	$81	**$5,678**	$1,446	$4,154	$173	**$5,773**	$1,443	$4,350	$178	**$5,971**
Department of Defense - Navy, Marine Corps	$1,758	$3,583	$70	**$5,411**	$1,716	$3,616	$151	**$5,483**	$1,711	$3,787	$155	**$5,654**
Postal Service	$1,648	$3,457	$68	**$5,173**	$1,609	$3,489	$146	**$5,243**	$1,605	$3,654	$150	**$5,409**
Executive Office of the President	$548	$3,611	$71	**$4,230**	$535	$3,645	$152	**$4,332**	$533	$3,817	$157	**$4,507**
National Labor Relations Board	$764	$2,934	$58	**$3,755**	$746	$2,961	$124	**$3,830**	$744	$3,101	$127	**$3,972**
Equal Employment Opportunity Commission	$946	$2,182	$43	**$3,171**	$923	$2,202	$92	**$3,217**	$921	$2,306	$95	**$3,322**
National Science Foundation	$644	$2,256	$44	**$2,945**	$629	$2,277	$95	**$3,001**	$627	$2,385	$98	**$3,110**
Architect of the Capitol	$442	$1,921	$38	**$2,401**	$432	$1,939	$81	**$2,452**	$431	$2,031	$83	**$2,545**
Federal Trade Commission	$590	$1,599	$31	**$2,221**	$576	$1,614	$67	**$2,257**	$575	$1,690	$69	**$2,334**
Office of Personnel Management	$1,286	$280	$6	**$1,572**	$1,255	$283	$12	**$1,550**	$1,252	$296	$12	**$1,561**
International Trade Commission	$241	$1,243	$24	**$1,508**	$235	$1,255	$52	**$1,542**	$234	$1,314	$54	**$1,602**
United States Congress	$327	$787	$15	**$1,130**	$320	$794	$33	**$1,147**	$319	$832	$34	**$1,185**
Department of Defense - Air Force	$669	$336	$7	**$1,012**	$653	$339	$14	**$1,007**	$651	$355	$15	**$1,021**
Consumer Product Safety Commission	$217	$617	$12	**$846**	$212	$623	$26	**$861**	$211	$653	$27	**$891**
Export-Import Bank of the United States	$186	$611	$12	**$809**	$181	$617	$26	**$824**	$181	$646	$27	**$853**
Federal Communications Commission	$777	$27	$1	**$805**	$759	$27	$1	**$787**	$757	$29	$1	**$787**
US Tax Court	$338	$445	$9	**$792**	$330	$449	$19	**$798**	$329	$471	$19	**$819**
Federal Maritime Commission	$79	$545	$11	**$634**	$77	$550	$23	**$650**	$77	$576	$24	**$676**
Railroad Retirement Board	$364	$229	$4	**$597**	$355	$231	$10	**$596**	$354	$242	$10	**$606**
National Aeronautics and Space Administration	$481	$54	$1	**$536**	$470	$54	$2	**$526**	$469	$57	$2	**$528**
Smithsonian Institution	$136	$230	$5	**$371**	$133	$232	$10	**$375**	$132	$243	$10	**$386**
Government Accountability Office	$169	$193	$4	**$366**	$165	$195	$8	**$368**	$164	$205	$8	**$377**
Securities and Exchange Commission	$225	$127	$2	**$355**	$220	$129	$5	**$354**	$219	$135	$6	**$360**
Federal Mediation and Conciliation Service	$171	$108	$2	**$282**	$167	$109	$5	**$281**	$167	$114	$5	**$286**
Library of Congress	$249	$0	$0	**$249**	$243	$0	$0	**$243**	$243	$0	$0	**$243**
National Endowment for the Humanities	$126	$0	$0	**$126**	$123	$0	$0	**$123**	$122	$0	$0	**$122**
Federal Labor Relations Authority	$56	$61	$1	**$118**	$55	$61	$3	**$118**	$55	$64	$3	**$121**
Federal Retirement Thrift Investment Board	$92	$0	$0	**$92**	$90	$0	$0	**$90**	$90	$0	$0	**$90**
Office of Special Counsel	$43	$34	$1	**$78**	$42	$34	$1	**$78**	$42	$36	$1	**$79**
Government Publishing Office	$9	$24	$0	**$34**	$9	$24	$1	**$34**	$9	$26	$1	**$35**
Selective Service System	$20	$0	$0	**$20**	$19	$0	$0	**$19**	$19	$0	$0	**$19**
American Battle Monuments Commission	$14	$0	$0	**$14**	$13	$0	$0	**$13**	$13	$0	$0	**$13**
Grand Total	**$368,892**	**$1,061,371**	**$20,815**	**$1,451,078**	**$360,079**	**$1,071,286**	**$44,690**	**$1,476,055**	**$359,196**	**$1,121,883**	**$46,031**	**$1,527,110**

*Revenue collections above include a 5% anticipated increase to account for new customer requirements and wage adjustments.

Federal Protective Services
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$1,451,078**	**$1,476,055**	**$1,527,110**
Carryover and/or Recoveries (Actual/Estimates/Projections)	$206,717	$130,702	$30,000
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$1,657,795**	**$1,606,757**	**$1,557,110**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$1,657,795**	**$1,606,757**	**$1,557,110**
Obligations (Actual/Projections/Estimates)	$1,416,502	$1,489,096	$1,482,187
Personnel: Positions and FTE			
Enacted/Request Positions	1,602	1,602	1,602
Enacted/Request FTE	1,507	1,507	1,507
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	1,602	1,602	1,602
FTE (Actual/Estimates/Projections)	1,507	1,507	1,507

Federal Protective Service
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**1,602**	**1,507**	**$1,451,078**
FY 2018 President's Budget	**1,602**	**1,507**	**$1,476,055**
FY 2019 Base Budget	**1,602**	**1,507**	**$1,476,055**
Annualization of 2018 Pay Raise	-	-	$973
Building-Specific Security Adj. to Off. Coll. Auth	-	-	$15,556
Building-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	$144
One-Time Net Adjustment for Federal Staff Expenses	-	-	$3,229
Reimb. Agcy-Specific Security Adj. to Off. Coll. Auth	-	-	$36,382
Reimb. Agcy-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	$1,568
Total, Pricing Increases	**-**	**-**	**$57,852**
Basic Security Adj. to Offsetting Collection Authority	-	-	($2,595)
Efficiencies in the FPS Operting Expenses	-	-	($4,202)
Total, Pricing Decreases	**-**	**-**	**($6,797)**
Total Adjustments-to-Base	**-**	**-**	**$51,055**
FY 2019 Current Services	**1,602**	**1,507**	**$1,527,110**
FY 2019 Request	**1,602**	**1,507**	**$1,527,110**
FY 2018 TO FY 2019 Change	**-**	**-**	**$51,055**

Federal Protective Service
Justification of Pricing Changes

Pricing Changes	FY 2019 President's Budget		
(Dollars in Thousands)	**Positions**	**FTE**	**Amount**
Pricing Change 1 - Annualization of 2018 Pay Raise	-	-	**$973**
FPS Operations	-	-	$973
Operating Expenses	-	-	$973
Pricing Change 2 - Basic Security Adj. to Offsetting Collection Authority	-	-	**($2,595)**
FPS Operations	-	-	($2,595)
Operating Expenses	-	-	($2,595)
Pricing Change 3 - Building-Specific Security Adj. to Off. Coll. Auth	-	-	**$15,556**
Countermeasures	-	-	$15,556
Protective Security Officers	-	-	$15,327
Technical Countermeasures	-	-	$229
Pricing Change 4 - Building-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	**$144**
FPS Operations	-	-	$144
Operating Expenses	-	-	$144
Pricing Change 5 - Efficiencies in the FPS Operting Expenses	-	-	**($4,202)**
FPS Operations	-	-	($4,202)
Operating Expenses	-	-	($4,202)
Pricing Change 6 - One-Time Net Adjustment for Federal Staff Expenses	-	-	**$3,229**
FPS Operations	-	-	$3,229
Operating Expenses	-	-	$3,229
Pricing Change 7 - Reimb. Agcy-Specific Security Adj. to Off. Coll. Auth	-	-	**$36,382**
Countermeasures	-	-	$36,382
Protective Security Officers	-	-	$35,270
Technical Countermeasures	-	-	$1,112
Pricing Change 8 - Reimb. Agcy-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	**$1,568**
FPS Operations	-	-	$1,568
Operating Expenses	-	-	$1,568
Total Pricing Changes	-	-	**$51,055**

Pricing Change 1 - Annualization of 2018 Pay Raise: The increase of approximately $1M represents the annualization of 2018 pay raise of 1.9% in FY 2019.

Pricing Change 2 - Basic Security Adj. to Offsetting Collections Authority: The decrease of $2.65M reflects a reduction in the footprint of 3.327 million square feet, impacting offsetting collection authority in FPS Operations/FPS Operating Expenses.

Pricing Change 3 - Building-Specific Security Adj. to Offsetting Collections Authority: The increase of $15.6M includes offsetting collection authority through Protective Security Officers ($15.3M) and Technical Countermeasures ($0.2M) impacting offsetting collections in Countermeasures.

Pricing Change 4 - Building-Specific Security Oversight Fee Adj. to Offsetting Collections Authority: The increase of $0.1M through FPS Operations/FPS Operating Expenses impacts the offsetting collection authority total for Building-Specific Security to $15.7M.

Pricing Change 5 - Efficiencies in the FPS Operating Expenses: The decrease of $4.2M reflects efficiencies in program expenses and support from base operations through reductions in advisory and assistance services, supplies and materials, the transportation of things, and building structures.

Pricing Change 6 - One-Time Net Adjustment for Federal Staff Expenses: This increase is for a one-time net adjustment in salaries and benefits (S&B) within FPS Operations/FPS Operating Expenses of approximately $3.2M reflecting anticipated costs for efforts involving pay, cyberpay, benefits, overtime, FLSA overtime, lump-sum payouts, etc.

Pricing Change 7 - Reimbursable Agency-Specific Security Adj. to Offsetting Collections Authority: This increase of approximately $36.4M represents offsetting collection authority through Countermeasures for Protective Security Officers ($35.3M) and Technical Countermeasures ($1.1M).

Pricing Change 8 - Reimbursable Agency-Specific Security Oversight Fee Adj. to Offsetting Collections Authority: This increase of approximately $1.6M through FPS Operations/FPS Operating Expenses reflects an increase to the offsetting collection authority total for Reimbursable Agency-Specific Security to an overall $38.0M.

Federal Protective Service
Personnel Compensation and Benefits
Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
FPS Operations	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28
Total	**1,602**	**1,507**	**$200,958**	**$133.33**	**1,602**	**1,507**	**$204,788**	**$135.88**	**1,602**	**1,507**	**$208,232**	**$138.16**	**-**	**-**	**$3,444**	**$2.28**
Discretionary - Offsetting Fee	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$126,366	$128,761	$131,306	$2,545
11.3 Other than Full-Time Permanent	$3,098	$3,143	$3,205	$62
11.5 Other Personnel Compensation	$23,159	$23,609	$23,474	($135)
12.1 Civilian Personnel Benefits	$48,312	$49,251	$50,224	$973
13.0 Benefits for Former Personnel	$23	$24	$23	($1)
Total - Personnel Compensation and Benefits	**$200,958**	**$204,788**	**$208,232**	**$3,444**
Positions and FTE				
Positions - Civilian	1,602	1,602	1,602	-
FTE - Civilian	1,507	1,507	1,507	-

NARRATIVE EXPLANATION OF CHANGES

FTE Change FY 2018-2019: No change between FY 2018 and FY 2019.

PCB Change FY 2018-2019: The PC&B increased by approximately $1M between FY 2018 and FY 2019 for the annualization of 2018 pay raise (one quarter of the fiscal year). Additionally, PC&B includes an increase for one-time net adjustment in salaries and benefits (S&B) within FPS Operations/FPS Operating Expenses of approximately $3.2M to reflect anticipated costs for efforts involving pay, cyberpay, benefits, overtime, FLSA overtime, lump-sum payouts, etc.

Average Cost Change FY 2018-2019: Average cost increased by $2,280 per FTE between FY 2018 and FY 2019.

Law Enforcement: FPS Federal compensation is based on the set pay raise and offsetting collection covers the increases. FPS law enforcement officers fill many roles including Inspectors, Criminal Investigators, K-9 Officers, District and Area Commanders.

Non-Law Enforcement: Non-law enforcement personnel provide support that sustains the mission and fill many roles including Mission Support Branch Chiefs, Budget Analysts, Contract Specialists, IT Specialists, and Personnel Security Specialists.

Federal Protective Service
Permanent Positions by Grade-Appropriation

Grades and Salary Range *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
Total, SES	8	8	10	2
GS-15	40	40	44	4
GS-14	150	150	157	7
GS-13	373	373	380	7
GS-12	621	621	560	-61
GS-11	90	90	91	1
GS-10	2	2	3	1
GS-9	140	140	135	-5
GS-8	16	16	17	1
GS-7	121	121	181	60
GS-6	1	1	1	-
GS-5	40	40	23	-17
Total Permanent Positions	**1,602**	**1,602**	**1,602**	**-**
Unfilled Positions EOY	95	95	95	-
Total Perm. Employment (Filled Positions) EOY	1,507	1,507	1,507	-
Position Locations				
Headquarters	273	273	303	30
U.S. Field	1,329	1,329	1,299	-30
Averages				
Average Personnel Costs, ES Positions	168,619	171,126	171,394	268
Average Personnel Costs, GS Positions	89,796	91,131	91,656	525
Average Grade, GS Positions	12	12	12	-

Federal Protective Service
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
FPS Operations	$167,934	$155,291	$150,964	($4,327)
Countermeasures	$1,082,186	$1,115,976	$1,167,914	$51,938
Total	**$1,250,120**	**$1,271,267**	**$1,318,878**	**$47,611**
Discretionary - Offsetting Fee	$1,250,120	$1,271,267	$1,318,878	$47,611

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$9,462	$8,377	$8,924	$547
22.0 Transportation of Things	$11,464	$11,195	$10,653	($542)
23.1 Rental Payments to GSA	$24,670	$24,100	$25,504	$1,404
23.2 Rental Payments to Others	$6	$6	$6	-
23.3 Communications, Utilities, and Misc. Charges	$9,540	$15,758	$21,518	$5,760
24.0 Printing and Reproduction	$138	$135	$143	$8
25.1 Advisory and Assistance Services	$24,032	$23,422	$19,041	($4,381)
25.2 Other Services from Non-Federal Sources	$1,107,665	$1,123,560	$1,177,977	$54,417
25.3 Other Goods and Services from Federal Sources	$5,180	$5,216	$5,552	$336
25.4 Operation and Maintenance of Facilities	$657	$641	$678	$37
25.6 Medical Care	$5	$5	$5	-
25.7 Operation and Maintenance of Equipment	$33,586	$30,436	$32,200	$1,764
25.8 Subsistence & Support of Persons	$2,823	$6,005	$5,484	($521)
26.0 Supplies and Materials	$3,287	$3,210	$3,068	($142)
31.0 Equipment	$4,386	$6,298	$4,023	($2,275)
32.0 Land and Structures	$13,203	$12,888	$4,087	($8,801)
42.0 Insurance Claims and Indemnities	$15	$15	$15	-
94.0 Financial Transfers	$1	-	-	-
Total - Non Pay Object Classes	**$1,250,120**	**$1,271,267**	**$1,318,878**	**$47,611**

FPS Operations - PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Operating Expenses	1,602	1,507	$368,892	1,602	1,507	$360,079	1,602	1,507	$359,196	-	-	($883)
Total	**1,602**	**1,507**	**$368,892**	**1,602**	**1,507**	**$360,079**	**1,602**	**1,507**	**$359,196**	**-**	**-**	**($883)**
Subtotal Discretionary - Offsetting Fee	1,602	1,507	$368,892	1,602	1,507	$360,079	1,602	1,507	$359,196	-	-	($883)

The major operating expense categories required to maintain current services for FPS Operations are briefly described in the subsections below. FPS' oversight fee revenue is combined with the basic security charge to provide FPS annual base operating revenue. Any carryover or recovery funds associated with FPS' PPAs may be used to fund operating or other expenses related to the protection of Federal facilities.

Protective Services
Protective Services provided by FPS include law enforcement operations, investigations, criminal intelligence and information sharing, K-9 operations, MegaCenter operations, critical incidents, and special security operations. Recent threats and attacks, both internationally and domestically, require FPS to invest an increasing amount of its law enforcement resources to rapidly respond to various locations across the country.

Facility Security Assessments
FPS law enforcement operations encompass all aspects and resources required to deliver law enforcement protective services. FPS law enforcement personnel perform Facility Security Assessments (FSAs) in accordance with Interagency Security Committee (ISC) standards, and provide oversight and inspection of the approximately 13,500 PSOs at roughly 6,000 posts in FPS protected buildings across the United States (U.S.) and its territories.

The cornerstone of FPS' protective security mission is the assessment of government facilities and associated infrastructure. A FSA inspection is a standardized comprehensive risk assessment that examines credible threats to Federal buildings and the vulnerabilities and consequences associated with those threats. For example, cyber-physical security questions were released for Tier 1 (reference table on page 17 for tiers), which helps with evaluation and assessment of building access control technologies for FPS-protected facilities.

Credible threats include criminal activities and potential acts of terrorism. Each facility is assessed against a baseline level of protection and countermeasures are recommended to mitigate the gaps identified to the baseline or other credible threats and vulnerabilities unique to a facility.

FSAs process and document the security related risks to a facility. Requirements for the frequency of Federal building security assessments are driven by the ISC standards with high risk facility (Facility Security Level (FSL) 3, 4, & 5) assessments occurring on a three (3) year cycle. FPS has a target of completing approximately 2,000 FSAs (all FSLs) annually for Federal facilities.

Law Enforcement Operations

FPS law enforcement personnel respond to thousands of incidences per year at Federal facilities and perform visible deterrence through mobile patrol and response activities. FPS law enforcement personnel are assigned to analyze criminal intelligence, investigate threats made against Federal officials, and investigate incidents occurring in Federal facilities. Training, firearms, ammunition, and uniforms all support the ability of FPS law enforcement personnel to deploy each day to protect Federal facilities. With that, FPS law enforcement also provides protection to a number of Congressional offices and to soft targets, on an "as-needed" basis. In addition, FPS works closely with the Administrative Office of the United States Courts and the U.S. Marshals Service to provide for the protection of Federal courthouses during high profile trials, involving terrorists, cartel drug lords, and other trials where protests or other security incidents may occur. Furthermore, FPS law enforcement provides on-going tenant awareness training in active shooter response, crime prevention, and occupant emergency planning.

Operation Shield is an FPS initiative that systematically deploys a full array of law enforcement and security personnel to test and validate the effectiveness of FPS countermeasures at facilities. This initiative includes assessing the effectiveness of Protective Security Officers (PSOs) in detecting the presence of unauthorized individuals or potentially disruptive or dangerous activities in or around Federal facilities, and their ability to prevent the introduction of prohibited items or harmful substances into the facilities. Operation MegaShield involves the participation of multiple law enforcement partners (Federal, state, local and territorial) at multiple FPS-protected facilities.

Operation Shield and MegaShield deployments: (1) provide a highly visible law enforcement presence; (2) potential to disrupt terrorist and criminal activity; (3) expand patrol operations through increased coverage; and (4) collect and assimilate data to continually assess and improve FPS' ability to achieve its core mission: to secure facilities and safeguard occupants.

FPS law enforcement also engages and provides security support during National Special Security Events (NSSE), Special Event Assessment Rating (SEAR), and other critical situations affecting the Federal community and the secure functioning of government services, including natural or man-made disasters. FPS may also deploy its law enforcement officers to Federal facilities adjacent to or in the vicinity of national security events (e.g., the national conventions and inauguration held every four years), when there is a risk determination that an FPS deployment is necessary. In support of these and for other protective security efforts, FPS employs 83 explosive detection canine teams, eight (8) large mobile command vehicles and four (4) smaller command vehicles.

Investigations, Criminal Intelligence, & Information Sharing

The FPS Protective Investigation Program (PIP) is part of a larger system that FPS uses to protect government facilities and occupants through threat mitigation, criminal investigation, and a training program that strengthens agents' knowledge and skills in available threat mitigation strategies. The key functions of the PIP are to identify individuals that might pose a threat, investigate and assess those individuals, and implement a mitigation strategy designed to prevent an attack.

FPS agents are responsible for investigating a wide range of criminal and non-criminal activity, including felony crimes, assaults, burglary, thefts, threat of harm to Federal employees, inappropriate communications, bomb threats, and suspicious activities. Threats to harm Federal employees and inappropriate communications cases make up a substantial portion of basic criminal investigations.

FPS agents are also strategically assigned to Federal Bureau of Investigation (FBI) Joint Terrorism Task Forces (JTTF) nationwide program. FPS leverages the resources of the 184 FBI JTTFs and thousands of Federal, state, and local law enforcement agencies to mitigate threats and other criminal activity directed at Federal facilities. The JTTFs collect and share national security intelligence; respond to threats and incidents; conduct investigations; provide training to first responders; and conduct outreach to private sector and other partners to protect the nation's critical infrastructure. FPS agents serve as Task Force Officers (TFO) and participate in all aspects of JTTF activities and counterterrorism (CT) investigations. On a monthly basis TFOs are directly involved in approximately 25 CT investigations with a nexus to Federal facilities. Under the FPS Suspicious Activity Reporting (SAR) Program FPS law enforcement officers and other Federal, state and local agencies use FBI eGuardian or directly contact JTTFs to report suspicious activity related to Federal facilities with a potential nexus to terrorism. These SARs are investigated by FPS or other JTTF TFOs. From 2009 to 2017, more than 1,300 investigative assessments were conducted through Guardian Threat Tracking related to Federal facilities or employees.

FPS headquarters intelligence analysts produce reports and briefings to apprise law enforcement officers and key stakeholders of the emerging threats and trends, basing these analyses on Intelligence Community and DHS Intelligence Enterprise raw and finished intelligence. In the regions, agents designated as Regional Intelligence Analysts collaborate with Federal, state, local and tribal law enforcement intelligence units and the national network of fusion centers to provide the most up-to-date local intelligence data to FPS law enforcement officers. The blending of national and local intelligence shapes FPS' protective security operational activities, including support to local special events that may pose risks to Federal facilities, employees and visitors seeking government services.

MegaCenter and Radio Communications
FPS personnel are required to respond to a variety of incidents 24 hours a day. Some of these entail responding to criminal activity in progress, and others to protect life and property. To provide around-the-clock capabilities to take calls for assistance, dispatch personnel, and ensure the appropriate response to incidents, FPS has four (4) MegaCenters strategically located throughout the country. They provide a vital national radio communications link between FPS law enforcement personnel, PSOs manning posts at or patrolling in Federal facilities, and other Federal, State, and local law enforcement entities. FPS' MegaCenters also facilitate the swift and efficient flow of information across the Nation and territories.

Throughout the year, the MegaCenters monitor multiple types of alarm systems, closed-circuit television, and wireless dispatch communications within Federal facilities throughout the Nation. The alarm monitoring function and dispatch services for GSA and other Federally owned and leased facilities provides a dedicated and specialized service to ensure prompt dispatch of law enforcement and emergency first responders to situations at those facilities. For instance, in this past fiscal year, the MegaCenters handled over two million incoming alarm signals requiring action. With that, alarm monitoring and dispatch services are provided as part of the Basic Security Fee. The cost of the alarm system as well as the operations and maintenance (O&M) are recovered in either the Building-Specific Security Collections or through Reimbursable Agency-Specific Security Collections with the corresponding oversight fee applied.

Cyber-Physical Security Support

Automation of facility systems has generated a demand for increased technological capabilities within traditional security and law enforcement duties. Facilities and supporting systems continue to evolve, subsequently blurring the lines between physical and information technology (IT) security. FPS' Advanced Technology Security Program (ATSP) inspectors address these risks to Federal facilities, thereby securing building and security technology against potential threat to unauthorized access to information or control devices to cause harm.

FPS' inspectors are responsible for Tier 1 and 2 activities. The National Cybersecurity and Communications Integration Center (NCCIC) conducts Tier 3 activities. The following table illustrates the Tier levels and primary responsibilities.

Tier Level	Description	Output	Primary Responsibility
Tier 1	Data Collection and Triage	• Utilizes existing assessment method, but evaluates system connectivity • Structured inputs added to existing evaluation in the FPS Gateway/Modified Infrastructure Survey Tool.	FPS Inspectors
Tier 2	Initial Cybersecurity Assessment	• Evaluation of cyber specific threats toward systems, agencies, and facility coupled with vulnerability research and Interagency Security Committee specific countermeasures as applied to each system	Advanced Technology Security Specialist (Inspectors w/Net+)
Tier 3	Advanced Cybersecurity Assessment	• Industrial Control Systems Cyber Emergency Response (ICS-CERT) Cybersecurity Evaluation Tool/Design Architecture Review/Network Architecture Validation	NCCIC (with FPS coordination)

Law Enforcement / Protective Security Training

FPS coordinates and conducts initial training for Inspectors through a 37-week comprehensive training program which certifies them as Federal law enforcement officers and provides certificates in national weapons detection training, use of electronic control devices, alarm and video surveillance systems technology, and facility security assessments. FPS also requires each law enforcement officer to attend in-service training annually and complete a more rigorous one (1) week training course every five (5) years.

Mission Support

FPS mission and business support activities include headquarters leadership; management and operations; field operations oversight; resource management to include budget, finance, revenue, and performance management; logistics contracting and procurement; workforce planning/human capital coordination; program management; and acquisition program and information technology system planning and oversight. Financial controls are critical to the achievement of the FPS mission. This focus is reflected in the planning and analytical rigor that underlies the emphasis placed on budgets, revenue and performance management, particularly with respect to ensuring: (1) financial transparency, (2) operational continuity, (3) responsiveness to customer demand and FPS direction, including surges, critical incidents, special events, and (4) the continuous realization of spending efficiencies.

IT Acquisition Programs

FPS Tactical Communications Program
The FPS Tactical Communications (TACCOM) Program provides a centralized dispatch capability that links officer-to-officer communications between FPS Headquarters (HQ), its 11 Regions, and the security personnel at the St. Elizabeth's Campus. The TACCOM Land Mobile Radio (LMR) communication system is a vital link to performing FPS' mission of securing and protecting Federal facilities and those inside them. TACCOM includes system maintenance provided by contracted operational field support technicians for FPS HQ, Regions, at St. Elizabeth's and dispatch radio consoles in four (4) MegaCenters located across the United States, ensuring the best possible reliability of the individual components contained therein.

In FY 2019, over $21.1M is projected for acquisition and O&M efforts of the FPS TACCOM Program, which is included within the budget authority for offsetting collections. FPS Federal staff in support of TACCOM is included in the FTP/FTE numbers under FPS Operations PPA. FPS is in the process of refreshing its TACCOM capabilities and the last year of modernization is planned for FY 2019.

FPS TACCOM Program		
(dollars in thousands)		
FY 2017	**FY 2018**	**FY 2019**
$39,409	$11,087	$21,111

FPS Law Enforcement Information Management System
The FPS Law Enforcement Information Management System (LEIMS) project replaces antiquated, unwieldy systems in order to provide investigative case management, incident reporting, and activity tracking for FPS investigators and inspectors. It allows FPS investigators and inspectors to generate actionable business intelligence, and implement modern resource allocation. In addition, FPS has invested in this capability to serve as its case management system, which is needed to replace FPS' use of the outgoing legacy Treasury Law Enforcement System, known as TECS. FPS, like U.S. Customs and Border Protection and U.S. Immigration and Customs Enforcement, is replacing TECS with a modernized case management system. LEIMS is designed to be a single system to track all incidents, case management, and non-traditional law enforcement and security activities. FPS requires a robust, enterprise, activity-based law enforcement information management system that will capture the full complement of physical security and law enforcement tasks. Without this capability, FPS will experience a decline in operational productivity.

In FY 2019, nearly $0.9M is projected for O&M of the LEIMS project. This is included within the budget authority for offsetting collections. FPS Federal staff that support LEIMS are included in the FTP/FTE numbers under FPS Operations PPA.

FPS LEIMS Program		
(dollars in thousands)		
FY 2017	**FY 2018**	**FY 2019**
$3,199	$1,820	$898

FPS Post Tracking System

The FPS Post Tracking System (PTS) project will be a web application to support PSO oversight and management. PTS project efforts were initiated in FY 2013 with full operational capability planned in the next couple of fiscal years. PTS will provide FPS with the capabilities to remotely monitor thousands of FPS guard posts in real time to ensure that the post is staffed by a qualified PSO. PTS will also provide associated business workflows, analytics, and reports in support of FPS operations and mission support users. For instance, PTS will allow FPS to automatically gather and store data needed to validate contract invoices, respond to data calls, provide management reports, and analyze performance. Without PTS, FPS will resort to manually managing and overseeing its contract PSO force, thus further tasking the inspectors.

In FY 2019, over $3.1M is projected for the acquisition and O&M efforts of the PTS project. This is included within the budget authority for offsetting collections. FPS Federal staff that support PTS are included in the FTP/FTE numbers under FPS Operations PPA.

FPS PTS Program		
(dollars in thousands)		
FY 2017	**FY 2018**	**FY 2019**
$5,624	$3,693	$3,136

FPS Training and Academy Management System

The FPS Training and Academy Management System (TAMS) project provides FPS with a platform to manage its training and academy function to include creating, managing, delivering and recording training critical to its workforce of law enforcement officers and contract PSOs. Law enforcement and security agencies are required to demonstrate how we train our law enforcement, to what standards we train our law enforcement and how we achieved those standards. Additionally, TAMS can provide FPS the capabilities to improve systems for complex training course scheduling and resource management, manage training and certification requirements and records, and assess training effectiveness. TAMS allows FPS to track training and certification status, training curriculum and content, and detailed training delivery history including student progress and results, and instructor information. This automated tool also provides FPS with a vital platform to oversee and validate PSO training and certification requirements and supports the PTS application.

In FY 2019, approximately $2.4M is projected for O&M of the TAMS project. This is included within the budget authority for offsetting collections. FPS Federal staff that support TAMS are included in the FTP/FTE numbers under FPS Operations PPA.

FPS TAMS Program		
(dollars in thousands)		
FY 2017	**FY 2018**	**FY 2019**
$2,560	$2,351	$2,374

Activity Based Costing Model
The Activity-Based Costing (ABC) model is a management tool that informs operational decisions and enables the analysis of trade-offs that support a risk-based approach to achieving mission success. FPS uses the ABC model to regularly review its fees, at minimum annually, to provide a stable source of revenue to ensure responsiveness to customer demand and NPPD direction, including surges, critical incidents, and special events. The model informs the fee schedule for building-specific and agency-specific security rates.

FPS continues to refine its ABC model to identify the costs to protect Federal facilities and their occupants. The ABC model informed the FY 2017 and FY 2018 budget requests as well as this budget submission. In order to forecast with ABC modeling, FPS uses the most recent full fiscal year data. Using expenses and distribution of labor survey results, FPS has projected an FY 2019 view of resource consumption using the ABC model.

The ABC model shows the FY 2017-2019 FPS operating expense requirements, which in FY 2019 are forecasted to reach approximately $452.7M however, FPS is projected to generate $359.2M in revenue for the Operations PPA. In FY 2019, FPS plans to rely on projected current fiscal year recoveries of approximately $24.4M for the Operations PPA while targeting efficiencies or program savings of approximately $69.1M in order to bridge this revenue to the mission requirements shortfall. FPS is projecting overall recoveries of $30.0M, which consist of the $24.4M for the Operations PPA and an estimate of $5.6M for the Countermeasures PPA.

The deployment of the 1,602 FTP/1,507 FTE by activity groupings is set forth in the table on the following page. The activity groupings in the table are only used to present greater transparency into FPS' operational and mission support activities.

Federal Protective Service (FPS) ABC Model Activity Groups	FY 2017		FY 2018		FY 2019	
	Total FTE	Total Cost ($M)*	Total FTE	Total Cost ($M)*	Total FTE	Total Cost ($M)*
Primary	**794**	**$ 160.2**	**794**	**$ 158.0**	**794**	**$ 158.5**
Law Enforcement Response	133	$ 24.1	133	$ 23.2	133	$ 23.3
Protective Investigations	19	$ 4.4	19	$ 4.3	19	$ 4.3
Facility Security Assessments (FSA)	245	$ 46.1	245	$ 44.4	245	$ 44.7
Protective Security Officer Services	144	$ 33.3	144	$ 35.8	144	$ 35.5
Criminal Investigations	41	$ 10.1	41	$ 9.8	41	$ 9.9
Technical Countermeasure Services	35	$ 7.6	35	$ 7.3	35	$ 7.3
Law Enforcement Policing and Protect	95	$ 16.9	95	$ 16.3	95	$ 16.4
Critical Incident and Special Security Operations	49	$ 11.4	49	$ 10.9	49	$ 11.0
Facility Tenant Support	25	$ 4.6	25	$ 4.4	25	$ 4.4
National Infrastructure Protection Plan Government Facilities Sector Support	2	$ 0.6	2	$ 0.5	2	$ 0.6
Delegation Management	6	$ 1.2	6	$ 1.1	6	$ 1.1
Secondary	**172**	**$ 84.1**	**172**	**$ 116.5**	**172**	**$ 97.6**
MegaCenter Operations	19	$ 35.6	19	$ 69.7	19	$ 50.5
K-9 Operations	59	$ 13.0	59	$ 12.5	59	$ 12.6
Criminal Intelligence and Information Sharing	20	$ 5.5	20	$ 5.3	20	$ 5.3
PSO Suitability	18	$ 18.8	18	$ 18.1	18	$ 18.3
Covert Security Testing	8	$ 1.7	8	$ 1.7	8	$ 1.7
Operation Shield	21	$ 3.8	21	$ 3.7	21	$ 3.7
Federal, State, and Local Coordination	23	$ 4.7	23	$ 4.5	23	$ 4.6
Contingency Operations	4	$ 0.9	4	$ 1.0	4	$ 0.9
Enabling	**232**	**$ 53.8**	**232**	**$ 51.8**	**232**	**$ 52.1**
Field Entry Level Training	61	$ 11.9	61	$ 11.5	61	$ 11.6
Field Standards and Certifications Training	32	$ 6.5	32	$ 6.2	32	$ 6.2
Field Advanced and Refresher Training	39	$ 9.4	39	$ 9.1	39	$ 9.1
Training Development and Delivery	42	$ 13.3	42	$ 12.8	42	$ 12.9
Administrative Training	11	$ 3.1	11	$ 3.0	11	$ 3.0
Stakeholder Engagement and Liaison	47	$ 9.5	47	$ 9.2	47	$ 9.3
Support	**303**	**$ 140.4**	**303**	**$ 142.5**	**303**	**$ 143.3**
Acquisition and Procurement	73	$ 19.7	73	$ 18.9	73	$ 19.1
Budget, Finance, Revenue, and Performance Management	59	$ 27.4	59	$ 26.4	59	$ 26.6
General Counsel	2	$ 0.4	2	$ 0.4	2	$ 0.4
Human Capital Management	38	$ 15.4	38	$ 14.8	38	$ 14.9
Information Technology	15	$ 32.6	15	$ 38.8	15	$ 38.8
Logistics, Facilities, Fleet, and Property Accountability and Management	51	$ 24.8	51	$ 23.9	51	$ 24.0
National Field Operations Oversight (Headquarters Operations)	36	$ 10.1	36	$ 9.7	36	$ 9.8
Personnel Security Management	13	$ 4.8	13	$ 4.6	13	$ 4.7
Policy	11	$ 3.9	11	$ 3.7	11	$ 3.7
Public Affairs	5	$ 1.4	5	$ 1.3	5	$ 1.3
Supplementary Services **	**7**	**$ 1.2**	**7**	**$ 1.2**	**7**	**$ 1.2**
Supplementary Services	7	$ 1.2	7	$ 1.2	7	$ 1.2
Grand Total	**1,507**	**$ 439.7**	**1,507**	**$ 470.0**	**1,507**	**$ 452.7**

Notes: * FPS will use prior year carryover and recoveries to support its FY 2017, FY 2018, and FY 2019 operating requirements.
           ** Supplementary Services reflects that FPS no longer conducts GSA and Daycare adjudications.

FPS Operations – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$368,892**	**$360,079**	**$359,196**
Carryover and/or Recoveries (Actual/Estimates/Projections)	$151,088	$59,752	$24,400
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$519,980**	**$419,831**	**$383,596**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$519,980**	**$419,831**	**$383,596**
Obligations (Actual/Projections/Estimates)	$439,687	$469,929	$452,703
Personnel: Positions and FTE			
Enacted/Request Positions	1,602	1,602	1,602
Enacted/Request FTE	1,507	1,507	1,507
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	1,602	1,602	1,602
FTE (Actual/Estimates/Projections)	1,507	1,507	1,507

FPS Operations – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**1,602**	**1,507**	**$368,892**
FY 2018 President's Budget	**1,602**	**1,507**	**$360,079**
FY 2019 Base Budget	**1,602**	**1,507**	**$360,079**
Annualization of 2018 Pay Raise	-	-	$973
Building-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	$144
One-Time Net Adjustment for Federal Staff Expenses	-	-	$3,229
Reimb. Agcy-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	$1,568
Total, Pricing Increases	**-**	**-**	**$5,914**
Basic Security Adj. to Offsetting Collection Authority	-	-	($2,595)
Efficiencies in the FPS Operting Expenses	-	-	($4,202)
Total, Pricing Decreases	**-**	**-**	**($6,797)**
Total Adjustments-to-Base	**-**	**-**	**($883)**
FY 2019 Current Services	**1,602**	**1,507**	**$359,196**
FY 2019 Request	**1,602**	**1,507**	**$359,196**
FY 2018 TO FY 2019 Change	**-**	**-**	**($883)**

FPS Operations – PPA
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Operating Expenses	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28
Total	**1,602**	**1,507**	**$200,958**	**$133.33**	**1,602**	**1,507**	**$204,788**	**$135.88**	**1,602**	**1,507**	**$208,232**	**$138.16**	**-**	**-**	**$3,444**	**$2.28**
Discretionary - Offsetting Fee	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$126,366	$128,761	$131,306	$2,545
11.3 Other than Full-Time Permanent	$3,098	$3,143	$3,205	$62
11.5 Other Personnel Compensation	$23,159	$23,609	$23,474	($135)
12.1 Civilian Personnel Benefits	$48,312	$49,251	$50,224	$973
13.0 Benefits for Former Personnel	$23	$24	$23	($1)
Total - Personnel Compensation and Benefits	**$200,958**	**$204,788**	**$208,232**	**$3,444**
Positions and FTE				
Positions - Civilian	1,602	1,602	1,602	-
FTE - Civilian	1,507	1,507	1,507	-

FPS Operations – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Operating Expenses	$167,934	$155,291	$150,964	($4,327)
Total	**$167,934**	**$155,291**	**$150,964**	**($4,327)**
Discretionary - Offsetting Fee	$167,934	$155,291	$150,964	($4,327)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$9,460	$8,375	$8,922	$547
22.0 Transportation of Things	$11,460	$11,186	$10,644	($542)
23.1 Rental Payments to GSA	$24,653	$24,064	$25,442	$1,378
23.2 Rental Payments to Others	$6	$6	$6	-
23.3 Communications, Utilities, and Misc. Charges	$4,001	$3,905	$3,716	($189)
24.0 Printing and Reproduction	$138	$135	$143	$8
25.1 Advisory and Assistance Services	$22,326	$19,759	$18,801	($958)
25.2 Other Services from Non-Federal Sources	$39,860	$36,166	$38,838	$2,672
25.3 Other Goods and Services from Federal Sources	$3,142	$3,067	$2,919	($148)
25.4 Operation and Maintenance of Facilities	$657	$641	$678	$37
25.6 Medical Care	$5	$5	$5	-
25.7 Operation and Maintenance of Equipment	$33,029	$29,244	$30,919	$1,675
25.8 Subsistence & Support of Persons	$32	$31	$31	-
26.0 Supplies and Materials	$3,283	$3,205	$3,050	($155)
31.0 Equipment	$2,663	$2,599	$2,748	$149
32.0 Land and Structures	$13,203	$12,888	$4,087	($8,801)
42.0 Insurance Claims and Indemnities	$15	$15	$15	-
94.0 Financial Transfers	$1	-	-	-
Total - Non Pay Object Classes	**$167,934**	**$155,291**	**$150,964**	**($4,327)**

Operating Expenses PPA – Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Operating Expenses	1,602	1,507	$368,892	1,602	1,507	$360,079	1,602	1,507	$359,196	-	-	($883)
Total	**1,602**	**1,507**	**$368,892**	**1,602**	**1,507**	**$360,079**	**1,602**	**1,507**	**$359,196**	**-**	**-**	**($883)**
Subtotal Discretionary - Offsetting Fee	1,602	1,507	$368,892	1,602	1,507	$360,079	1,602	1,507	$359,196	-	-	($883)

*Reflects reprogramming/transfers, as applicable and actual FTE. This footnote applies to all FY 2017 Enacted tables throughout the CJ Submission. For comparison purposes only, FY 2017 funding levels reflect the CAS Structure effective October 1, 2016.

FPS Operating Expenses Level II PPA provides funding for:

- Salaries and Benefits for the Federal staff compensation and benefits;
- Protective Services for Law Enforcement Operations, Investigations, Criminal Intelligence, & Information Sharing, K-9 Operations, MegaCenter Operations, Critical Incidents and Special Security Operations, Fleet, and Facilities;
- Training for Law Enforcement entry-level training, Law Enforcement advanced and refresher training, Law Enforcement standards and certification training, and Administrative training; and
- Mission Support for Policy and Planning, Acquisition Management, Adjudications, HSPD-12, Budget, Finance; and Revenue, Human Capital, Information Technology, Logistics and other business support services.

Operating Expenses – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	**1,602**	**1,507**	**$368,892**
FY 2018 President's Budget	**1,602**	**1,507**	**$360,079**
FY 2019 Base Budget	**1,602**	**1,507**	**$360,079**
Annualization of 2018 Pay Raise	-	-	$973
Building-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	$144
One-Time Net Adjustment for Federal Staff Expenses	-	-	$3,229
Reimb. Agcy-Specific Security Oversight Fee Adj. to Off. Coll. Auth	-	-	$1,568
Total, Pricing Increases	**-**	**-**	**$5,914**
Basic Security Adj. to Offsetting Collection Authority	-	-	($2,595)
Efficiencies in the FPS Operting Expenses	-	-	($4,202)
Total, Pricing Decreases	**-**	**-**	**($6,797)**
Total Adjustments-to-Base	**-**	**-**	**($883)**
FY 2019 Current Services	**1,602**	**1,507**	**$359,196**
FY 2019 Request	**1,602**	**1,507**	**$359,196**
FY 2018 TO FY 2019 Change	**-**	**-**	**($883)**

*The FPS FY 2019 Budget Request includes 1,602 FTP/1,507 FTE. Below are the following net pricing adjustments: Offsetting Collections Authority of $51.937 million: Adjustment for $15.553 million in Building-Specific Security offsetting collection authority; and Adjustment for $36.384 million in Reimbursable Agency-Specific Security offsetting collection authority.

Operating Expenses-PPA Level II
Personnel Compensation and Benefits
Pay Summary

Organization	FY 2017 Enacted				FY 2018 President's Budget				FY 2019 President's Budget				FY 2018 to FY 2019 Total			
(Dollars in Thousands)	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Operating Expenses	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28
Total	**1,602**	**1,507**	**$200,958**	**$133.33**	**1,602**	**1,507**	**$204,788**	**$135.88**	**1,602**	**1,507**	**$208,232**	**$138.16**	**-**	**-**	**$3,444**	**$2.28**
Discretionary - Offsetting Fee	1,602	1,507	$200,958	$133.33	1,602	1,507	$204,788	$135.88	1,602	1,507	$208,232	$138.16	-	-	$3,444	$2.28

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
11.1 Full-time Permanent	$126,366	$128,761	$131,306	$2,545
11.3 Other than Full-Time Permanent	$3,098	$3,143	$3,205	$62
11.5 Other Personnel Compensation	$23,159	$23,609	$23,474	($135)
12.1 Civilian Personnel Benefits	$48,312	$49,251	$50,224	$973
13.0 Benefits for Former Personnel	$23	$24	$23	($1)
Total - Personnel Compensation and Benefits	**$200,958**	**$204,788**	**$208,232**	**$3,444**
Positions and FTE				
Positions - Civilian	1,602	1,602	1,602	-
FTE - Civilian	1,507	1,507	1,507	-

Pay Cost Drivers

Leading Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Law Enforcement	1,134	$156,942	$138.40	1,134	$159,933	$141.03	1,134	$162,623	$143.41	-	$2,690	$2.37
Non-Law Enforcement	373	$44,016	$118.01	373	$44,855	$120.25	373	$45,609	$122.28	-	$754	$2.02
Total – Pay Cost Drivers	1,507	$200,958	$133.33	1,507	$204,788	$135.88	1,507	$208,232	$138.16	-	$3,444	$2.28

Operating Expenses – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Operating Expenses	$167,934	$155,291	$150,964	($4,327)
Total	**$167,934**	**$155,291**	**$150,964**	**($4,327)**
Discretionary - Offsetting Fee	$167,934	$155,291	$150,964	($4,327)

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$9,460	$8,375	$8,922	$547
22.0 Transportation of Things	$11,460	$11,186	$10,644	($542)
23.1 Rental Payments to GSA	$24,653	$24,064	$25,442	$1,378
23.2 Rental Payments to Others	$6	$6	$6	-
23.3 Communications, Utilities, and Misc. Charges	$4,001	$3,905	$3,716	($189)
24.0 Printing and Reproduction	$138	$135	$143	$8
25.1 Advisory and Assistance Services	$22,326	$19,759	$18,801	($958)
25.2 Other Services from Non-Federal Sources	$39,860	$36,166	$38,838	$2,672
25.3 Other Goods and Services from Federal Sources	$3,142	$3,067	$2,919	($148)
25.4 Operation and Maintenance of Facilities	$657	$641	$678	$37
25.6 Medical Care	$5	$5	$5	-
25.7 Operation and Maintenance of Equipment	$33,029	$29,244	$30,919	$1,675
25.8 Subsistence & Support of Persons	$32	$31	$31	-
26.0 Supplies and Materials	$3,283	$3,205	$3,050	($155)
31.0 Equipment	$2,663	$2,599	$2,748	$149
32.0 Land and Structures	$13,203	$12,888	$4,087	($8,801)
42.0 Insurance Claims and Indemnities	$15	$15	$15	-
94.0 Financial Transfers	$1	-	-	-
Total - Non Pay Object Classes	**$167,934**	**$155,291**	**$150,964**	**($4,327)**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Nationwide IT Infrastructure Operations and Maintenance	$38,192	$42,328	$42,328	$0
MegaCenter Dispatch Operations	$28,683	$28,860	$28,860	$0
Rent – GSA	$24,653	$24,064	$25,442	$1,378
Working Capital Fund	$11,350	$11,474	$10,709	($765)
Other	$65,056	$48,565	$43,625	($4,940)
Total – Non Pay Cost Drivers	**$167,934**	**$155,291**	**$150,964**	**($4,327)**

Nationwide IT Infrastructure Operations and Maintenance: No growth planned in nationwide IT infrastructure O&M from FY 2018 to FY 2019.

MegaCenter/Dispatch Operations: No growth in operations between FY 2018 and FY 2019. FPS maintains support for its four (4) nationwide MegaCenters and will offset for anticipated costs increases related to inflationary adjustments and for maintaining communication systems through efficiencies.

Rent – GSA: FPS applied a forecasted increase in rent expenses in FY 2019. FPS occupies approximately 905,000 square feet of operational and support space obtained through GSA. Rent costs are derived from annual estimates provided by GSA and the DHS Working Capital Fund.

Working Capital Fund (WCF): FPS provides funding to the DHS WCF, a managed account from which a full range of oversight support services such as finance, accounting, and personnel administration are provided to all DHS components. Algorithms are employed to assess charges.

Other: FPS plans to continue reducing other non-pay cost drivers. For instance, FPS has begun to implement a reduction in non-pay expenses that are less essential for the mission. This has been a primary focus of FPS, particularly after its major equipment purchase in FY 2017 under the FPS TACCOM Program and the travel costs that supported law enforcement training requirements and special operations. Moreover, in FY 2018, reductions are planned in advisory and assistance services as well in miscellaneous program expenses, such a reduction in supplies and materials and with the transportation of things. In FY 2019, FPS Operations/Operating Expenses will be continuously focused on employing efficiencies and/or using offsets to sustain and continue mission delivery.

Countermeasures - PPA
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
(Dollars in Thousands)	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Protective Security Officers	-	-	$1,059,825	-	-	$1,071,286	-	-	$1,121,883	-	-	$50,597
Technical Countermeasures	-	-	$22,361	-	-	$44,690	-	-	$46,031	-	-	$1,341
Total	**-**	**-**	**$1,082,186**	**-**	**-**	**$1,115,976**	**-**	**-**	**$1,167,914**	**-**	**-**	**$51,938**
Subtotal Discretionary - Offsetting Fee	-	-	$1,082,186	-	-	$1,115,976	-	-	$1,167,914	-	-	$51,938

The Countermeasures PPA uses the following two recovery charging categories in FPS' budget authority to collect for security services:

- Building-specific security services are provided in accordance with security requirements generated through an FSA or customer request. Building costs are distributed to tenants based on square footage from GSA Occupancy Agreements and are recovered on a monthly basis. Charges include an oversight fee to fund FPS oversight and overhead costs.

- Reimbursable agency-specific security, also called tenant-specific security, is negotiated via Security Work Authorizations (SWAs) or reimbursable agreements between FPS and another Federal agency. The two types of security services are PSOs and TCMs, which are similar to building-specific, but are configured for an individual customer rather than a multi-tenant facility. Reimbursements consist of the estimated direct cost of the security services requested, plus the oversight fee.

Countermeasures – PPA
Budget Authority and Obligations

Budget Authority *(Dollars in Thousands)*	FY 2017	FY 2018	FY 2019
Enacted/Request	**$1,082,186**	**$1,115,976**	**$1,167,914**
Carryover and/or Recoveries (Actual/Estimates/Projections)	$55,629	$70,950	$5,600
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Supplementals	-	-	-
Total Budget Authority	**$1,137,815**	**$1,186,926**	**$1,173,514**
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	**$1,137,815**	**$1,186,926**	**$1,173,514**
Obligations (Actual/Projections/Estimates)	$976,815	$1,019,167	$1,029,484
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Countermeasures – PPA
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$1,082,186**
FY 2018 President's Budget	-	-	**$1,115,976**
FY 2019 Base Budget	-	-	**$1,115,976**
Building-Specific Security Adj. to Off. Coll. Auth	-	-	$15,556
Reimb. Agcy-Specific Security Adj. to Off. Coll. Auth	-	-	$36,382
Total, Pricing Increases	-	-	**$51,938**
Total Adjustments-to-Base	-	-	**$51,938**
FY 2019 Current Services	-	-	**$1,167,914**
FY 2019 Request	-	-	**$1,167,914**
FY 2018 TO FY 2019 Change	-	-	**$51,938**

Countermeasures – PPA
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Protective Security Officers	$1,059,825	$1,071,286	$1,121,883	$50,597
Technical Countermeasures	$22,361	$44,690	$46,031	$1,341
Total	**$1,082,186**	**$1,115,976**	**$1,167,914**	**$51,938**
Discretionary - Offsetting Fee	$1,082,186	$1,115,976	$1,167,914	$51,938

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$2	$2	$2	-
22.0 Transportation of Things	$4	$9	$9	-
23.1 Rental Payments to GSA	$17	$36	$62	$26
23.3 Communications, Utilities, and Misc. Charges	$5,539	$11,853	$17,802	$5,949
25.1 Advisory and Assistance Services	$1,706	$3,663	$240	($3,423)
25.2 Other Services from Non-Federal Sources	$1,067,805	$1,087,394	$1,139,139	$51,745
25.3 Other Goods and Services from Federal Sources	$2,038	$2,149	$2,633	$484
25.7 Operation and Maintenance of Equipment	$557	$1,192	$1,281	$89
25.8 Subsistence & Support of Persons	$2,791	$5,974	$5,453	($521)
26.0 Supplies and Materials	$4	$5	$18	$13
31.0 Equipment	$1,723	$3,699	$1,275	($2,424)
Total - Non Pay Object Classes	**$1,082,186**	**$1,115,976**	**$1,167,914**	**$51,938**

Protective Security Officers – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Protective Security Officers	-	-	$1,059,825	-	-	$1,071,286	-	-	$1,121,883	-	-	$50,597
Total	**-**	**-**	**$1,059,825**	**-**	**-**	**$1,071,286**	**-**	**-**	**$1,121,883**	**-**	**-**	**$50,597**
Subtotal Discretionary - Offsetting Fee	-	-	$1,059,825	-	-	$1,071,286	-	-	$1,121,883	-	-	$50,597

Protective Security Officers Level II PPA provides funding that supports contract PSO services that are a key component of FPS' protective security mission. Individual risk assessments combined with specific customer requirements drive the placement of PSOs. PSOs provide:

- Access Control by ensuring access to secured areas in accordance to access control procedures;
- Control Center Operations by integrating multiple countermeasures through monitoring of security equipment and facilitating communication with other posts or law enforcement as necessary;
- Patrol and Response by patrolling and monitoring facilities for safety, security, and enforcement purposes;
- Screening by identifying and interdicting unlawful, dangerous, or prohibited items to ensure that they do not enter a secured area; and
- Visitor Processing by identifying and documenting visiting individuals.

FPS sets parameters to ensure that countermeasures are effectively functioning as designed and that the contracted service is in compliance with contract requirements. Achievement of this framework is measured by the successful completion of PSO post inspections/post visits that are conducted during the course of a year. The number of post inspections/post visits conducted per year is set annually per directives guiding protective security force performance monitoring. FPS post inspections/post visits review compliance in the operation of the post including the identification of the individual on duty, post desk book, cleanliness and orderly operation of the post, PSO knowledge of the post orders, and PSO performance of duties in accordance with the post orders to include professionalism, proper certifications, and licenses. When technical countermeasures are deployed at a post, the effectiveness of that countermeasure is also assessed. Finally, post inspections/post visits are an integral part of FPS' security mission and require sufficient resources to achieve its mission, while also ensuring that customer requirements and expectations are being met to reduce and mitigate facility risk.

Protective Security Officers – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount
FY 2017 Enacted	-	-	**$1,059,825**
FY 2018 President's Budget	-	-	**$1,071,286**
FY 2019 Base Budget	-	-	**$1,071,286**
Building-Specific Security Adj. to Off. Coll. Auth	-	-	$15,327
Reimb. Agcy-Specific Security Adj. to Off. Coll. Auth	-	-	$35,270
Total, Pricing Increases	-	-	**$50,597**
Total Adjustments-to-Base	-	-	**$50,597**
FY 2019 Current Services	-	-	**$1,121,883**
FY 2019 Request	-	-	**$1,121,883**
FY 2018 TO FY 2019 Change	-	-	**$50,597**

Protective Security Officers – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Protective Security Officers	$1,059,825	$1,071,286	$1,121,883	$50,597
Total	**$1,059,825**	**$1,071,286**	**$1,121,883**	**$50,597**
Discretionary - Offsetting Fee	$1,059,825	$1,071,286	$1,121,883	$50,597

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
21.0 Travel and Transportation of Persons	$2	$2	$2	-
23.3 Communications, Utilities, and Misc. Charges	$35	$35	$35	-
25.2 Other Services from Non-Federal Sources	$1,057,809	$1,069,252	$1,119,369	$50,117
25.3 Other Goods and Services from Federal Sources	$1,957	$1,975	$2,455	$480
25.7 Operation and Maintenance of Equipment	$3	$3	$3	-
25.8 Subsistence & Support of Persons	$16	$16	$16	-
26.0 Supplies and Materials	$3	$3	$3	-
Total - Non Pay Object Classes	**$1,059,825**	**$1,071,286**	**$1,121,883**	**$50,597**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Protective Security Officer Contracts	$1,059,825	$1,071,286	$1,121,883	$50,597
Total – Non Pay Cost Drivers	**$1,059,825**	**$1,071,286**	**$1,121,883**	**$50,597**

Protective Security Officer Contracts: The services provided under the PSO contracts are a key component of the execution of FPS' protective security mission. Individual risk assessments combined with the specific customer requirements of each facility drive the placement of PSO-staffed security posts at different facilities. These posts are charged with minimizing specific vulnerabilities to identified credible threats. From FY 2018 into FY 2019, FPS forecasted a 4.7% cost adjustment for costs associated with PSO contracts.

Technical Countermeasures – PPA Level II
Budget Comparison and Adjustments
Comparison of Budget Authority and Request

Organization *(Dollars in Thousands)*	FY 2017 Enacted			FY 2018 President's Budget			FY 2019 President's Budget			FY 2018 to FY 2019 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Technical Countermeasures	-	-	$22,361	-	-	$44,690	-	-	$46,031	-	-	$1,341
Total	**-**	**-**	**$22,361**	**-**	**-**	**$44,690**	**-**	**-**	**$46,031**	**-**	**-**	**$1,341**
Subtotal Discretionary - Offsetting Fee	-	-	$22,361	-	-	$44,690	-	-	$46,031	-	-	$1,341

FPS Countermeasures/Technical Countermeasures (TCM) Level II PPA allows FPS to provide an integrated and cost-effective level of protection. TCM includes x-ray machines, magnetometers, alarm systems, closed circuit video (CCV) equipment, and access control systems. FPS' TCM program includes design, implementation, project/equipment oversight, and on-going collaboration with Federal partners.

FPS is responsible for installing and maintaining appropriate technical countermeasures to mitigate threats to Federal facilities by enhancing the protective security posture across the facility portfolio. Once deployed, TCM costs are reimbursed by customers.

The process of replacing antiquated technology and equipment that has reached and/or exceeded its intended useful life (much of the equipment is over 10 years old), has created significant risks by degrading the ability to deter, negate, and detect credible threats to Federal facilities, personnel, information and equipment. The older analog technology will not be supported by manufacturers, integrators or installers. Therefore, it is necessary for FPS to update TCM projects with digital technology and equipment in order to address the evolving threat environment by enhancing its ability to secure Federal facilities. FPS will continue to support modernization efforts by considering facility security levels and operability of existing systems. The outcome from making TCM investments will be to enhance the security capabilities at FPS protected facilities.

Technical Countermeasures – PPA Level II
Summary of Budget Changes

Budget Formulation Activity *(Dollars in Thousands)*	Positions	FTE	Amount

Technical Countermeasures – PPA Level II
Non Pay Budget Exhibits
Non Pay Summary

Organization *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Technical Countermeasures	$22,361	$44,690	$46,031	$1,341
Total	**$22,361**	**$44,690**	**$46,031**	**$1,341**
Discretionary - Offsetting Fee	$22,361	$44,690	$46,031	$1,341

Non Pay by Object Class

Non-Pay Object Classes *(Dollars in Thousands)*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Change
22.0 Transportation of Things	$4	$9	$9	-
23.1 Rental Payments to GSA	$17	$36	$62	$26
23.3 Communications, Utilities, and Misc. Charges	$5,504	$11,818	$17,767	$5,949
25.1 Advisory and Assistance Services	$1,706	$3,663	$240	($3,423)
25.2 Other Services from Non-Federal Sources	$9,996	$18,142	$19,770	$1,628
25.3 Other Goods and Services from Federal Sources	$81	$174	$178	$4
25.7 Operation and Maintenance of Equipment	$554	$1,189	$1,278	$89
25.8 Subsistence & Support of Persons	$2,775	$5,958	$5,437	($521)
26.0 Supplies and Materials	$1	$2	$15	$13
31.0 Equipment	$1,723	$3,699	$1,275	($2,424)
Total - Non Pay Object Classes	**$22,361**	**$44,690**	**$46,031**	**$1,341**

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers *Dollars in Thousands*	FY 2017 Enacted	FY 2018 President's Budget	FY 2019 President's Budget	FY 2018 to FY 2019 Total Changes
Technical Countermeasure Contracts	$22,361	$44,690	$46,031	$1,341
Total Non Pay Cost Drivers	**$22,361**	**$44,690**	**$46,031**	**$1,341**

Technical Countermeasure Contracts: Funding for TCM contracts allows FPS to procure and maintain technical security equipment, install or upgrade required infrastructure to support equipment networking, and equipment end of life replacement. From FY 2018 to FY 2019, FPS forecasted an increase of 3.0% for TCM resources required for its customers and tenant agencies.