

Department of the Treasury
Bureau of Engraving and
Printing

Congressional Budget
Justification and Annual
Performance Plan and Report

FY 2021

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Section I – Budget Request

A – Mission Statement

To develop and produce United States currency notes trusted worldwide.

B – Summary of the Request

The Bureau of Engraving and Printing (BEP) produces and delivers U.S. currency notes for the Federal Reserve System ordered by the Board of Governors of the Federal Reserve (FRB) and other security products for the Federal Government. BEP began printing currency in 1862 and operates on the basis of authority conferred upon the Secretary of the Treasury by 31 U.S.C. 321(a) (4) to engrave and print currency and other security documents. Operations are financed through a revolving fund established in 1950 in accordance with Public Law 81-656. The fund is reimbursed for direct and indirect costs of operations, including administrative expenses, through product sales. In 1977, Public Law 95-81 authorized BEP to include an amount sufficient to fund capital investment and to meet working capital requirements in the prices charged for products, eliminating the need for annual discretionary appropriations.

BEP provides technical assistance, advice, and some production services to other federal agencies in the development of security documents that require counterfeit deterrent features due to their innate value or other characteristics. Other activities at BEP include engraving plates and dies; manufacturing inks used to print security products; purchasing materials, supplies and equipment; and storing and delivering products in accordance with customer requirements. BEP supports Treasury's Strategic Goal 1: Boost U.S. Economic Growth and Strategic Goal 5: Achieve Operational Excellence.

BEP's FY 2021 request funds the following projects:

- 1. Replacement Production Facility:** In FY 2019, BEP received legislative authority to acquire land and fund construction of a more efficient production facility to replace BEP's current aging Washington, D.C. facility. Additionally, a provision of the 2019 Farm Bill authorizes the transfer of a U.S. Department of Agriculture (USDA) land parcel in Beltsville, Maryland to the Department of the Treasury to be the site for BEP's replacement production facility. BEP is conducting a suitability assessment of the site with the support from the U.S. Army Corps of Engineers. The formal transfer from USDA to Treasury is anticipated in early 2020. A replacement facility will save an estimated \$579 million over 10 years, as compared to the cost of the renovation of the existing facility. In addition, BEP will reduce its annual operating costs by at least \$38 million through production, material handling, and other operational/support efficiencies. In FY 2020, the budget includes about \$5 million for the remaining site evaluation tasks and relocation of several onsite USDA facilities that must be removed prior to the initiation of onsite BEP construction activities. Also anticipated in FY 2021 is the initiation of early site development construction activities estimated at \$30 million to include site grading, roadway improvements, and utility system relocation to support the BEP development.
- 2. Western Currency Facility Expansion:** BEP began expanding the Western Currency Facility in (WCF) FY 2018 to house and support the new equipment required for the next generation of currency design. Producing the next family of updated notes requires that BEP purchase and install new production equipment to support the new designs. The expansion will provide the space and infrastructure necessary to successfully meet the production requirements of the next family of U.S. currency banknotes that focus on the integration of strong, new security features.

Unforeseen weather-related delays caused the project to fall 4 to 6 months behind schedule. The expansion work is expected to be completed in FY 2021 with contract close out occurring in FY 2022. The FY 2021 projected cost for the WCF is \$5 million.

3. **Banknote Design and Development:** In FY 2021, BEP will continue working with the Federal Government's Advanced Counterfeit Deterrent (ACD) Steering Committee to research and develop improved security features for the next family of updated notes. The ACD Committee is an inter-agency group established to monitor and explore existing and emerging technologies to deter the counterfeiting of U.S. currency. It includes representatives from BEP, the Department of the Treasury, the U.S. Secret Service, and the Federal Reserve Board (FRB). The updated notes will focus on innovative banknote security and anti-counterfeit technology that will enhance and ensure the security and integrity of U.S. currency. While many factors are taken into consideration when updating currency, the primary purpose for updating notes is to improve the security of U.S. banknotes and ensure they maintain their position as being trusted worldwide.
4. **Retooling:** BEP is conducting a multi-year effort to retool its manufacturing processes with state-of-the-art intaglio printing presses, electronic inspection systems, and finishing equipment. To ensure that BEP will meet the annual currency order, the FRB and BEP developed short, medium, and long-term strategic equipment replacement plans for the U.S. Currency Program. Successful implementation of advanced technology improves productivity, reduces environmental impact, and enhances counterfeit deterrence of U.S. currency notes. In FY 2020/2021, the major retooling initiatives include:
 - Upgrade and completely automate the \$100 finishing line to integrate Single Note Inspection technology. The capability to inspect single notes provides a significant improvement over BEP's traditional sheet inspection process. Spoilage will be reduced significantly, and processing efficiency will increase resulting in cost savings.
 - Replace the existing hexavalent chromium plating line with a Physical Vapor Deposition Chrome system which has known environmental benefits and potential plate life improvement benefits.
 - Upgrade plate-making with Computer-to-Plate technology. Computer generated digital image transferred directly to a printing plate. This technology improves note image quality and plate making efficiency.
 - Develop a Crease Detection System to detect paper creases and improve print quality.
 - Acquire new security feature equipment to support production of the next generation of currency.
5. **Human Capital/Talent Management:** BEP will continue its designated talent management initiatives, while filling personnel gaps in needed STEM and cybersecurity skill sets. BEP has proactively continued to fill the gaps in the STEM and cybersecurity positions in FY 2020 by utilizing a variety of hiring authorities to onboard five new hires in the first quarter. Additionally, the BEP attended two Recruit Military events in the D.C. and Dallas/Ft. Worth locations in November 2019 to attract potential veteran candidates. As of January 9, 2020, twelve STEM selectees are pending pre-employment hiring reviews and entrance on duty. In terms of Employee Engagement, the Office of Human Resources made deliberate efforts to assess and track all engagement related activities and metrics including: implementation of a "Core Values" program; development and implementation of a Collaborative Communication Network; development of an Employee Appreciation program; and the establishment of a BEP

Community Spirit program that will take place during FY 2020. Throughout FY 2021, BEP will continue to develop, execute, and communicate the results of Employee Engagement Plans and the annual Federal Employee Viewpoint Survey (FEVS) results.

1.1 – Resources Detail Table

Dollars in Thousands

Budgetary Resources	FY 2019		FY 2020		FY 2021		FY 2020 to FY 2021	
	Actual		Estimate		Estimate		% Change	
Revenue/Offsetting Collections	FTE	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	AMOUNT
Currency Program	1,727	\$944,993	1,804	\$810,701	1,863	\$878,400	3.27%	8.35%
Other Programs	0	\$10,219	0	\$9,000	0	\$9,000	0	0.00%
Total Revenue/Offsetting Collections	1,727	\$955,212	1,804	\$819,701	1,863	\$887,400	3.27%	8.26%
Expenses/Obligations								
Manufacturing								
Direct Manufacturing	817	451,661	853	\$385,259	881	\$417,078	3.28%	8.26%
Indirect Manufacturing Support	910	503,551	951	\$434,442	982	\$470,322	3.26%	8.26%
Total Expenses/Obligations	1,727	955,212	1,804	\$819,701	1,863	\$887,400	3.27%	8.26%
Net Results	0	0	0	0	0	0	NA	NA

1.2 – Budget Adjustments Table

Dollars in Thousands

	FTE	Materials	Operating & Capital	Total
FY 2020 Original Estimate	1,863	\$244,051	\$642,836	\$886,887
Program Changes				
Program Decreases:	(59)	(\$50,000)	(\$53,236)	(\$103,236)
Currency Program decrease (7.0B to 5.2B)	0	(\$50,000)	\$0	(\$50,000)
Washington D.C. Replacement Facility	0	\$0	(\$44,950)	(\$44,950)
Hiring Lag	(59)	\$0	(\$8,286)	(\$8,286)
Program Increases:	0	\$0	\$36,050	\$36,050
R&D (New Note Features)	0	\$0	\$19,000	\$19,000
Support Services Contract	0	\$0	\$3,500	\$3,500
Pay Raise (3.1% average pay raise)	0	\$0	\$7,700	\$7,700
WCF Expansion	0	\$0	\$5,850	\$5,850
Subtotal Program Changes	(59)	(50,000)	(\$17,186)	(\$67,186)
FY 2020 Revised Estimate	1,804	\$194,051	\$625,650	\$819,701
Changes to Base				
Maintaining Current Levels (MCLs)	0	\$0	\$14,686	\$14,686
Pay Annualization (2020 3.1% average pay raise)	0	\$0	\$1,998	\$1,998
Pay Raise (1.0% average pay raise)	0	\$0	\$1,948	\$1,948
FERS Contribution Increase	0	\$0	\$3,383	\$3,383
Non-Pay	0	\$0	\$7,357	\$7,357
Efficiency Savings	0	\$0	(\$5,000)	(\$5,000)
Overtime Reduction	0	\$0	(\$5,000)	(\$5,000)
Subtotal Changes to Base	0	\$0	\$9,686	\$9,686
FY 2021 Current Services	1,804	\$194,051	\$635,336	\$829,387
Program Changes				
Program Decreases:	0	\$0	(\$51,400)	(\$51,400)
Retooling	0	\$0	(\$33,000)	(\$33,000)
New Equipment Initiatives	0	\$0	(\$15,000)	(\$15,000)
WCF Expansion	0	\$0	(\$3,400)	(\$3,400)
Program Increases:	59	\$53,237	\$56,176	\$109,413
Washington D.C. Replacement Facility	0	\$0	\$24,890	\$24,890
New Security Feature Equipment (WCF)	0	\$0	\$24,000	\$24,000
Estimated Currency Program increase (6.8B)	0	\$53,237	\$0	\$53,237
Complete Hiring Plan	59	\$0	\$7,286	\$7,286
Subtotal Program Changes	59	\$53,237	\$4,776	\$58,013
FY 2021 Estimate	1,863	\$247,288	\$640,112	\$887,400

C – Budget Increases and Decreases Description

FY 2020 Revised Estimate

Program Decreases.....-\$103,236,000 / -59 FTE

Currency Note Program -\$50,000,000 / -0 FTE

This decrease reflects the FY 2020 order of notes from the FRB. The order decreased from 7.0 billion notes in FY 2019 to 5.2 billion notes in FY 2020.

Washington D.C. Replacement Facility -\$44,950,000 /-0 FTE

In FY 2019, BEP received legislative authority to acquire land and build a more efficient facility in the Washington, D.C. area. As a result of the new authority, BEP will not undertake the previously planned renovation to the existing facility in D.C.

Hiring Lag - \$8,286,000/ -59 FTE

This adjustment is to reflect the impact of the hiring lag.

Program Increases.....+\$36,050,000 / +0 FTE

Research and Development +\$19,000,000/ +0 FTE

To continue the research and development of the new security features for the new family of notes.

Support Service Contracts +\$3,500,000/ +0 FTE

To mitigate the risks associated with the growing hiring backlog, the funding would be used to acquire support services to provide business continuity.

Pay Raise (3.1% in 2020) +\$7,700,000/ +0 FTE

Funds are required for 3.1% average pay raise in January 2020.

WCF Expansion +\$5,850,000/ +0 FTE

The funding will be used for unforeseen construction issues.

FY 2021 Maintaining Current Levels (MCLs)+\$14,686,000 / +0 FTE

Pay Annualization (3.1%) +\$1,998,000 / +0 FTE:

Funds are required for annualization of the January 2020 3.1% average pay raise.

Pay Raise (1.0% in 2021) +\$1,948,000 / +0 FTE:

Funds are required for a 1.0% average pay raise in January 2021.

FERS Contribution Increase +\$3,383,000 / +0 FTE:

Funds are required for the Federal Employee Retirement System (FERS) contribution rates effective FY 2021.

Non-Pay +\$7,357,000 / +0 FTE

Funds are required for non-labor expenses such as travel, contracts, rent, supplies, and equipment.

FY 2021 Efficiency Savings-\$5,000,000 / -0 FTE

Overtime Reduction -\$5,000,000 / -0 FTE

The new production technologies would yield more efficiencies resulting in less overtime.

Program Decreases-\$51,400,000 / -0 FTE

Retooling -\$33,000,000 / -0 FTE

The FY 2021 anticipated requirements are estimated to be \$33 million lower than that of FY 2020.

New Equipment Initiatives -\$15,000,000 / -0 FTE

Requested funding supports the acquisition of new technology/equipment to be used in the testing of new security design features. The FY 2021 requirements are estimated to be \$15 million less than that of FY 2020.

WCF Expansion -\$3,400,000/ -0 FTE

The FY 2021 anticipated requirements are estimated to be \$3.4 million lower than that of FY 2020.

Program Increases+\$109,413,000 / +59 FTE

Washington D.C. Replacement Facility +\$24,890,000 /+0 FTE

Funds are requested to reflect the increase from FY 2020 to FY 2021 to support pre-construction activities.

New Security Feature Equipment (WCF) +\$24,000,000 / +0 FTE

Currency Redesign efforts require investment in new application equipment which is to be installed in WCF in FY 2021 and subsequently installed at the replacement D.C. Facility.

Currency Note Program +\$53,237,000 / +0 FTE

Early indications suggest that the yearly currency order placed by the Federal Reserve Board will return to average order levels in FY 2021.

Complete Hiring Plan +\$7,286,000 / +59 FTE

BEP has been experiencing a hiring lag over the last several years. BEP anticipates reducing the backlog of hiring actions in FY 2021 and plans to execute and complete proposed hiring actions and on board FTEs.

1.3 – Object Classification (Schedule O) Obligations

Dollars in Thousands

Object Classification	FY 2019 Actual Obligations*	FY 2020 Estimated Obligations	FY 2021 Estimated Obligations
11.1 - Full-time permanent	166,750	176,850	182,750
11.3 - Other than full-time permanent	150	180	180
11.5 - Other personnel compensation	3,000	3,200	3,200
11.6 - Overtime	20,750	12,200	10,000
11.9 - Personnel Compensation (Total)	190,650	192,430	196,130
12.0 - Personnel benefits	62,000	65,350	72,733
Total Personnel and Compensation Benefits	\$252,650	\$257,780	\$268,863
21.0 - Travel and transportation of persons	2,000	2,000	2,000
22.0 - Transportation of things	600	600	600
23.1 - Rental payments to GSA	4,000	4,000	4,000
23.2 - Rental payments to others	450	1,000	1,000
23.3 - Communication, utilities, and misc charges	15,000	16,350	16,350
24.0 - Printing and reproduction	250	250	250
25.1 - Advisory and assistance services	7,750	8,000	7,000
25.2 - Other services	136,432	117,000	112,500
25.4 - Operation and maintenance of facilities	32,000	28,000	28,000
25.5 - Research and development contracts	47,300	50,000	50,000
25.7 - Operation and maintenance of equip	17,000	16,500	16,252
26.0 - Supplies and materials	262,880	194,051	248,921
31.0 - Equipment	176,750	124,015	131,509
42.0 - Insurance claims and indemnities	150	155	155
Total Non-Personnel	702,562	561,921	618,537
Total Obligations	\$955,212	\$819,701	\$887,400

Full-time Equivalents (FTE)	1,727	1,804	1,863
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* The FY 2019 obligations reflect an updated object class breakout for corrections made after the reporting window and do not match the FY 2021 President's Budget Appendix. The adjustments did not affect the total FY 2019 obligations.

D – Appropriations Language and Explanation of Changes

The BEP does not need annual appropriations language.

E – Legislative Proposals

As proposed previously, BEP requests the authority to print security documents such as birth, marriage, and death certificates for state governments. Many states are unable to find an American printing firm to produce the documents. These states are turning to foreign companies or lowering their security standards.

Section II – Annual Performance Plan and Report

A – Strategic Alignment

BEP's vision is to be the world's standard securities printer providing its customers and the public with superior products through excellence in manufacturing and innovation. BEP supports the following Department of the Treasury FY 2018-2022 strategic goals:

- Goal 1: Boost U.S. Economic Growth
 - Trusted Currency and Services

- Goal 5: Achieve Operational Excellence
 - Workforce Management
 - Treasury Infrastructure
 - Delivering Customer Value

U.S. currency is used globally and as its manufacturer, BEP needs to achieve and maintain best-in-class practices for U.S. currency to be accepted worldwide. Working closely with its partners in the U.S. Currency Program, BEP looks forward to updating the next series of secure notes. BEP continues to make every effort to meet its mission to manufacture sophisticated and technologically advanced notes that are dependable in commerce. This achievement requires the focus and determination of the entire agency, since BEP faces challenges and is committed to stay ahead of increasingly sophisticated counterfeiters.

B – Budget and Performance by Budget Activity

2.1 – Manufacturing Resources and Measures

Dollars in Thousands

Resource Level	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Estimate	FY 2021 Estimate
Expenses/Obligations	\$778,592	\$648,365	\$712,920	\$914,134	\$955,212	\$819,701	\$887,400
Budget Activity Total	\$778,592	\$648,365	\$712,920	\$914,134	\$955,212	\$819,701	\$887,400
Full-time Equivalents (FTE)	1,781	1,790	1,818	1,748	1,727	1,804	1,863

The FY 2015 - FY 2019 columns represent realized resources for full-time equivalents, reimbursables, and user fees.

Performance Measure	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2019 Target	FY 2020 Target	FY 2021 Target
Currency Notes Delivered Returned Due to Defects (Parts per Million)	N/A	N/A	N/A	0.0031ppm	0.09ppm	<1ppm	<1ppm	<1ppm
Improved FEVS Satisfaction	66%	66%	68%	70%	68%	65%	65%	65%
Lost Time Accident Rate per 100 Employees	1.65	1.77	1.6	0.9	1.05	1.8	1.8	1.8
Manufacturing Costs For Currency (Dollar Costs Per Thousand Notes Produced)	\$42.35	\$44.25	\$43.58	\$47.41	\$51.01	\$51.66	\$56.00	\$56.00
Yearly Currency Order (percent of order completed versus planned)	N/A	N/A	N/A	N/A	100%	100%	100%	100%

Manufacturing Budget and Performance

(\$887,400,000 from reimbursable sources)

The BEP has one budget activity: Manufacturing. This budget activity supports all of BEP's strategic goals as well as supporting Treasury's Strategic Goals Boosting U.S. Economic Growth and Achieving Operational Excellence.

Description of Performance:

Currency Notes Returned Due to Defects (parts per million (ppm)) is an indicator of BEP's ability to provide a quality product. The target for this performance metric is <1 ppm. BEP was able to exceed the established target in FY 2019 due to improved quality assurance processes with an actual result of 0.09 ppm notes returned due to a defect. BEP's target for this performance metric will be held constant at <1 ppm for FY 2020 and FY 2021.

The Federal Employees Viewpoint Survey (FEVS) allows employees to share their opinion on what matters most to them. Based on the results of the survey, BEP can target areas for improvement or additional employee engagement. The measure uses the Department's standard FEVS Employee Engagement Index with a target of 65 percent. In FY 2020 and 2021, BEP will continue to strive for improvements in overall employee satisfaction.

The Lost Time Accident Rate per 100 employees measures the BEP's ability to reduce injuries and illnesses in the workplace. BEP's FY 2019 Lost Time Accident rate was at 1.05 cases per 100 employees, 42 percent lower than the target of 1.80 cases per 100 employees. This performance resulted from increased focus on following safe work practices, avoiding hazards, and being a Director's priority. For FY 2021, BEP remains committed to maintaining and improving the safety of its employees. BEP will continue to perform analysis to determine the root causes of any injury and to identify best practices in safety. BEP's target will be held at 1.80 cases per 100 employees for FY 2020 and FY 2021.

Manufacturing Costs for Currency (dollar cost per 1,000 notes produced) is an indicator of manufacturing efficiency and effectiveness of program management. The measure is based on contracted price factors, productivity improvements, and the mix of denominations ordered. Actual performance against standard costs depends on BEP's ability to meet spoilage, efficiency, and capacity utilization goals. In FY 2019, the cost of manufacturing was lower than anticipated due to operational efficiencies. The FY 2019 cost was \$51.01 per 1,000 notes produced, compared to a target of \$51.66. BEP's target for this performance metric in FY 2020 and FY 2021 is set at \$56.00 per 1,000 notes produced. Per unit cost for currency is projected to increase because of significant reduction to the currency order for 2020 and higher labor rates and material price increases.

The Yearly Currency Order measures BEP's success in delivering the total number of currency notes ordered by the Federal Reserve Board annually. In FY 2019, BEP met its target of delivering 100 percent of the currency notes ordered. In FY 2020 and FY 2021, BEP will continue to target delivering 100 percent of the FRB's currency order.

C – Changes in Performance Measures

N/A

D – Evidence-Building Activity

U.S. Currency notes are rapidly increasing in complexity to incorporate improved security, counterfeit deterrence, machine readability, and raised tactile functionality for the vision impaired. The BEP's Currency Quality Assurance (CQA) program was designed to integrate the current ISO 9001:2015 certified Quality Management System, new technologically advanced design features, new equipment, new processes, and ever higher quality and environmental demands to produce trusted U.S. currency at high volume and exceptional value.

A robust CQA program is necessary to address every aspect of the U.S. Currency lifecycle; from product development, acquisition of material, through process and production control, to final release and delivery. During the research and development phase of the new security features, each potential feature must undergo a rigorous feasibility study. BEP CQA collects study and testing data to determine feasibility. Features that are deemed unfeasible will not advance to the next phase. In FY 2019, BEP CQA devoted extensive effort to support series changes, verification, and validation work, and the new Catalyst family of note designs. In FY 2020 and FY 2021, BEP will continue to focus on research and development of the remaining security features for the new Catalyst Family of note designs and improving the overall CQA program.

Section III – Additional Information

A – Summary of Capital Investments

A summary of capital investment resources, including major information technology and non-technology investments can be found at:

<https://www.treasury.gov/about/budget-performance/Pages/summary-of-capital-investments.aspx>.