



Office of Inspections and Forensic Auditing
Office of Inspector General
U.S. General Services Administration

Evaluation of 18F

JE17-001

October 24, 2016

Introduction

In December 2015, the OIG Office of Inspections and Forensic Auditing initiated an evaluation of the General Services Administration (GSA) Office of 18F (18F), based on concerns expressed to us by several senior GSA officials about the management of 18F. The objective of this evaluation was to review 18F's business operations. Our evaluation included a review of 18F's business model to determine if it operates within the requirements of its funding source, the Acquisition Services Fund (ASF). We also reviewed 18F's reimbursable agreements process, including its process for billing and collecting from clients. We identified issues with 18F's plan to achieve full cost recovery, 18F's agreements with federal agencies, and 18F's billing process for charging and collecting from clients.

Our report makes seven recommendations to address the issues identified in this report. In response to our report, GSA management agreed with our recommendations. Management's comments can be found in their entirety in the Appendix.

Background

Program History

In May 2012, the President of the United States initiated the Digital Government Strategy, which has three objectives: 1) to enable the American people and an increasingly mobile workforce to access high-quality digital government information and services anywhere, anytime, and on any device; 2) to ensure that government procures and manages devices, applications, and data in smart, secure, and affordable ways; and 3) to unlock the power of government data to spur innovation and improve the quality of services for the American people.¹

The Digital Government Strategy included the creation of the Presidential Innovation Fellows (PIF) program. The PIF program places private sector technologists in six- to twelve-month fellowships within federal agencies to produce solutions to government information technology (IT) problems. The PIF program was administered by the Office of Personnel Management from its inception through spring 2013, when the program was transferred to GSA.

In January 2013, personnel from the White House, the Office of Management and Budget (OMB), and GSA began to discuss creating a team of innovators drawn from the private sector to

¹ The Digital Government Strategy complements several initiatives aimed at building a 21st century government that works better for the American people. These include Executive Order 13571 (Streamlining Service Delivery and Improving Customer Service), Executive Order 13576 (Delivering an Efficient, Effective, and Accountable Government), the President's Memorandum on Transparency and Open Government, OMB Memorandum M-10-06 (Open Government Directive), the National Strategy for Trusted Identities in Cyberspace (NSTIC), and the 25-Point Implementation Plan to Reform Federal Information Technology Management (IT Reform). (Source: <https://www.whitehouse.gov/sites/default/files/omb/egov/digital-government/digital-government.html>)

bring industry experience and innovation into the government. They decided to house the project in GSA and to locate the PIF program within the project.²

Former GSA Administrator Daniel Tangherlini initially placed the project under the management and control of GSA's Commissioner of the Federal Acquisitions Service (FAS) and funded it using FAS's funding source: the Acquisition Services Fund (ASF). The arrangement allowed GSA to secure a reliable funding source that would sustain and expand the program through administrations.

In November 2013, former Administrator Tangherlini moved the project from FAS to the GSA Office of Citizen Services and Innovative Technologies (OCSIT). OCSIT develops and delivers shared technology services, platforms, and practices with the goal of improving information and service delivery across government. For example, OCSIT runs Data.gov, which is a hub for federal agencies to maintain public datasets. The project continued to use ASF funds to operate; however, the management and operation of the program was brought under the control of the OCSIT Associate Administrator rather than the FAS Commissioner.

In March 2014, former Administrator Tangherlini announced the project as "18F," which he described as "a team of experts and innovators that will work to simplify the government's digital services, making them more efficient and effective...these public servants will provide cutting edge support for our federal partners that reduces cost and improves service."³ A year and a half later, on August 17, 2015, President Obama signed an executive order formally establishing the PIF program within GSA.

Funding

Under a Memorandum of Agreement (MOA) between FAS and OCSIT, GSA funds 18F's operational costs using the ASF.⁴ The ASF is a revolving fund comprised of the revenue generated from FAS business lines.⁵ It was established through the General Services Administration Modernization Act (Modernization Act) in 2006.⁶

The Modernization Act created FAS with the express purpose "to establish a Federal Acquisition Service, to replace the General Supply Fund and the Information Technology Fund with an Acquisition Services Fund, and for other purposes." Under this enactment, the former entities

² The name initially used within GSA for this project was Project X. The name was later changed to Project Systems Transformation and Operations Reform (STORM), then to the GSA United States Digital Service (USDS), and ultimately to 18F. The Office of Management and Budget later started its own digital services team named "USDS," which is different than 18F.

³ 18F is named after its central location in the GSA headquarters building at 1800 F Street, NW, Washington, DC.

⁴ The MOA was most recently updated and signed on June 2, 2015.

⁵ GSA 2013 Agency Financial Report, Management's Discussion and Analysis.

⁶ Public Law 109-313 (October 6, 2006). The Modernization Act amended the 2002 revision of Title 40 with respect to GSA. Under 40 USC § 321, the ASF is used for the acquisition of information technology solutions, telecommunications, motor vehicles, supplies, and a wide range of goods and services for federal agencies. This fund recovers all costs through fees charged to federal agencies for services rendered and commodities provided.

called the Federal Supply Service, which provided commercial products and services to federal customers, and the Federal Technology Service, which provided telecommunications and IT services, were consolidated into a new service, FAS.

In creating FAS, Congress also created a statutory officer to head the new service: the Commissioner of FAS. Subject to the direction and control of the Administrator of General Services, the Commissioner is responsible for carrying out functions related to the uses for which the Acquisition Services Fund is authorized including any functions that were carried out by the entities known as the Federal Supply Service and the Federal Technology Service and such other related functions as the Administrator considers appropriate.⁷

The ASF is available for use by or under the direction and control of the GSA Administrator, who determines the cost and capital requirements of the ASF for each fiscal year and develops a plan for the requirements in consultation with the Chief Financial Officer of GSA. Any changes to the cost and capital requirements of the ASF for a fiscal year must be approved by the Administrator. The Administrator also establishes rates to be charged to agencies for personal property and non-personal services provided through the ASF.⁸ As of February 28, 2016, the ASF had a balance of \$1.29 billion.

Despite 18F's move from FAS management to OCSIT control, the FAS Commissioner still retains responsibility for carrying out functions related to 18F's use of the ASF. The Modernization Act places responsibility on the FAS Commissioner for carrying out the functions related to the ASF, under the direction and control of the GSA Administrator. According to GSA Order ADM P 5450.39D, *GSA Delegation of Authority Manual*, authority for the administration of the ASF and fixing of prices payable by requisitioning agencies on purchases of property or services through the ASF were delegated from the Administrator to the FAS Commissioner.⁹

The MOA between FAS and OCSIT states that 18F is permitted to use the ASF "to accelerate the acquisition and development of information technology across the Government." It also states that 18F may generate new business lines, products, and services subject to full cost recovery requirements. In accordance with the MOA, 18F must recover all costs from work performed in order to reimburse the ASF for its operating funds, including both direct and indirect costs.

In February 2014, the GSA General Counsel, Kris Durmer, provided guidance to the former OCSIT Associate Administrator David McClure, the FAS Commissioner, and others which identified three authorities to reimburse the ASF for 18F's Client Services business line: the ASF (40 USC §321), the Economy Act (31 USC §1535) and the Federal Citizen Services Fund (40 USC § 323). According to the guidance, 18F can cite the ASF authority to obtain reimbursement for work that may lead to the development of a product or service that can be resold by FAS. The Economy Act authority may be cited to obtain reimbursement when a federal agency hires 18F

⁷ 40 USC § 303 (a) and (b) and 321.

⁸ 40 USC § 321 (b)(3) and (c)(1).

⁹ Order ADM P 5450.39D, GSA Delegation of Authority Manual, Chapter 4, Federal Acquisition Service, Part 1, Delegation of Authority from the Administrator to the Commissioner, FAS, (1)(h) and (i).

for a product or service. The authority of the Federal Citizen Services Fund may be cited to obtain reimbursement when 18F works under an agreement with OCSIT.¹⁰

In order to obtain cost reimbursement, 18F enters into formal agreements with its federal clients and charges a set rate per hour for work performed. 18F's billing rate is reviewed by 18F management bi-annually with GSA's Office of Chief Financial Officer (OCFO). The rate is set based on three main objectives: 1) to set prices low in order not to discourage demand, 2) to ensure compliance with cost recovery authorities, and 3) to maintain a plan for cost recovery pursuant to the MOA with FAS. Since its launch in March 2014, 18F's hourly billing rates have changed twice. Most recently, on July 10, 2015, 18F requested an increase in the highest hourly billing rate from \$172 to \$205 and following a review, OCFO approved the increase effective for fiscal year (FY) 2016.¹¹

Mission and Business Lines

18F's mission has evolved since its launch in March 2014. In March 2014, former GSA Administrator Tangherlini stated that 18F's mission was "to make the government's digital services simple, effective, and easier to use for the American people." This aligned with OCSIT's mission of improving the public's experience with the U.S government. In accordance with this mission, 18F's initial projects consisted of software and website development, such as the creation of software tools for public access to the Air Force's small business programs and a mobile application called "Lantern Live" for the Department of Energy that allows users in disaster areas to find fuel and look up power outage maps.

18F has since expanded its focus from developing websites and software to becoming a "consultancy for the Government...enabling agencies to rapidly deploy tools and services that are easy to use, cost efficient, and reusable."¹² For example, the Social Security Administration hired 18F to assist in developing and executing an agile acquisition strategy for the Social Security Administration's Disability Case Processing System. The Small Business Administration also hired 18F to provide training workshops on agile development and acquisition.

18F's business lines have changed along with its changing mission. 18F began with two self-described business lines: Presidential Innovation Fellows and Client Services. Federal agencies have hired Presidential Innovation Fellows to work on IT projects such as a Census Bureau

¹⁰ The Federal Citizen Services Fund is the funding source for OCSIT's work on IT projects that affect federal agencies and the public they interact with. According to GSA's 2017 Congressional Justification, the Fund receives reimbursements from federal agencies to pay for the direct costs of information services OCSIT provides on behalf of the agencies, and receives user fees for publications ordered by the public, payments from private entities for services rendered, and gifts from the public. All resources are retained in the fund without fiscal year limitation. The yearly expenditure is not to exceed \$90 million.

¹¹ From 18F's inception to January 2015, billing rates varied from project to project. Effective January 8, 2015, 18F established a rate model of \$172 per hour for a staff employee at the GS-15 level. In July 2015, the billing rates increased to the following: a GS-7 level staff member is billed at \$146 per hour, GS-9 at \$152 per hour, GS-11 at \$160 per hour, GS-12 at \$169 per hour, GS-13 at \$180, GS-14 at \$191 per hour and GS-15 at \$205 per hour.

¹² 18F's GitHub Core Values page updated last in October 2015 <https://github.com/18F/core-values/blob/18f-pages/pages/vision-mission.md>.

project to make maps and geospatial information more accessible to the public. The Client Services line included building websites for public access to federal agencies' data and information. For example, the Department of Treasury hired 18F to build a website, "MyRA.gov," to assist the public in investing money for retirement.

By March 2016, 18F had five business lines: Customer Partner Solutions, Products and Platforms, Digital Acquisition Services and Marketplaces, Transformation Services, and Learn. GSA describes these lines as follows:

1. **Custom Partner Solutions:** 18F provides federal agencies with solutions that are catered to the specific agency's IT needs. For example, 18F developed a tool called CALC 2.0 for FAS to assist contracting officers in conducting market research on professional services.
2. **Products and Platforms:** 18F develops products and platforms to be used government-wide. Platforms provide tools to develop applications or websites for the end users. For example, 18F created Cloud.gov for small federal IT teams to develop and deploy cloud-based web services.
3. **Digital Acquisition Services and Marketplaces:** 18F helps agencies purchase IT services and products, assisting throughout the acquisition process. For example, 18F provided ghostwriting services to the Department of Health and Human Services for a request for proposal to procure a child welfare data system.
4. **Transformation Services:** 18F provides a team of staff to work with agencies to increase internal digital capacity and institute modern IT practices, such as agile development. For example, 18F assisted TSA in modernizing its IT delivery functions by creating a cross-disciplined development team and managing their transition to a cloud-based operating environment.
5. **Learn:** 18F develops best practices to provide federal agencies with tools and knowledge to modernize their digital services. 18F offers workshops on agile software development, hosts design studios, and creates guides for sharing knowledge. For example, 18F built an online reference guide for OCSIT that communicated best practices for federal digital service teams.

As recently as June 2016, 18F managers indicated their intent to focus more on teaching Chief Information Officer (CIO) offices how to use agile development to acquire their own products, and on creating platforms that CIO offices can use to build their own products. The Executive Director of 18F, Aaron Snow, stated, "We would like to get to the position eventually where what we're doing is providing digital acquisition platform services, educational services, but not actually engaging in build..."¹³

¹³ Stated at the Bloomberg Government event in Washington, DC on June 29, 2016.

Technology Transformation Service

On April 29, 2016, GSA Administrator Denise Turner Roth signed GSA Order ADM 5440.696, *Change in GSA Organization (Technology Transformation Service)* (Order) to establish the new Technology Transformation Service, which includes 18F and OCSIT.¹⁴ According to the order, all memorandums of agreement and interagency agreements, including 18F’s MOA with FAS, are to remain in effect with TTS until and unless modifications are approved.

TTS Organizational Structure

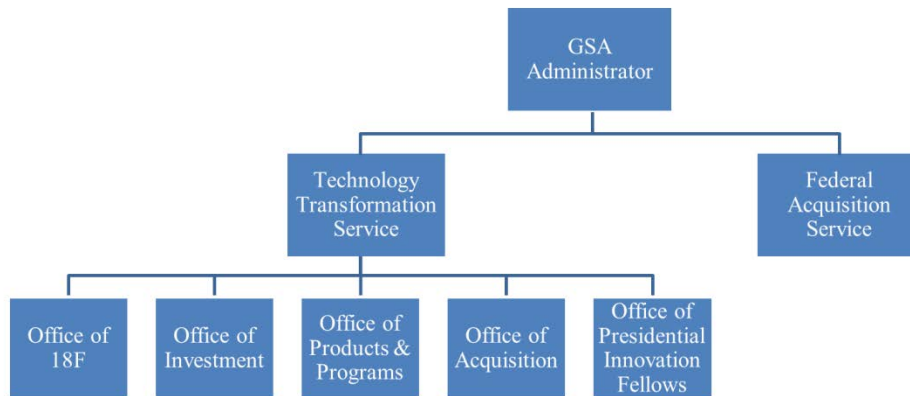


Figure 1. Organizational structure of the newly established Technology Transformation Service.

The Order states that the new service will “transform the way government builds, buys, and shares technology.” The Order also states that the new service is responsible for:

- Designing, building and/or operating technology products, services, and other technology assets for federal agencies;
- Consulting with federal agencies on the design, build, procurement, and/or operations of technology and the recruitment of staff with related expertise;
- Designing, building and/or operating Government-wide technology products and platforms necessary for the Service to accomplish the two items above;
- Identifying and testing emerging technology products and services;
- Educating federal agencies on modern technology design, development, operations, and procurement methodologies;
- Leading GSA in incubating government-wide technology products and platforms where technical expertise is needed for development, procurement and/or operation. Incubation will be done in coordination with other parts of GSA; and
- Leading GSA in incubating new contracting vehicles to procure emerging technology products and services where technical expertise is needed. Incubation will be done in coordination with FAS, and all government-wide procurement vehicles will be housed in FAS.

¹⁴ The TTS was established by the GSA Administrator while this review was ongoing. With the exception of 18F, this evaluation did not include a review of TTS.

The Order also directed FAS to provide embedded procurement support in and to partner with TTS in incubating new external contract vehicles. Additionally, the Order directs the GSA Senior Procurement Executive to re-delegate procurement authority to the Commissioner of TTS in order to carry out its mission.

Customers

As of July 2016, 18F has performed work for 31 federal agencies, including GSA. 18F performed work for seven different organizations within GSA: the Office of Information, Integrity, and Access; FAS; OCSIT; the Office of Human Resources Management; the Office of Small Business Utilization; the Office of Government-wide Policy; and the Office of Customer Experience. Overall, GSA and the Department of Homeland Security have been 18F’s largest customers. GSA has entered into a total of 68 agreements with 18F totaling \$23.75 million, and the Department of Homeland Security entered into a total of 12 agreements with 18F totaling \$15.38 million over the past three years.

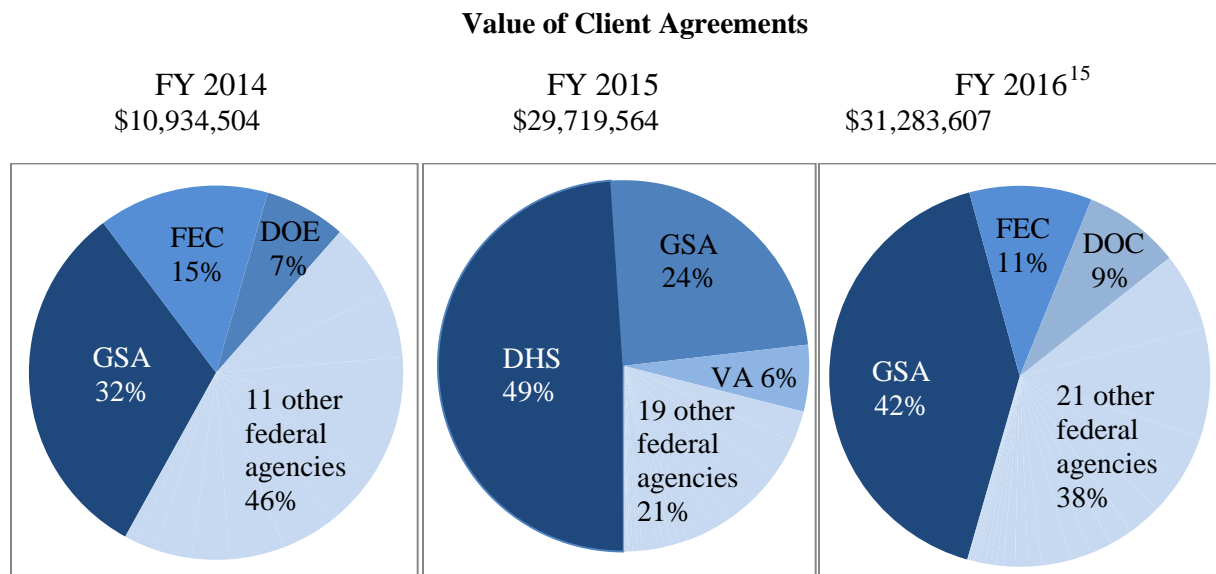


Figure 2. Charts illustrating value of 18F agreements with client agencies over the past three fiscal years to July 13, 2016. The agencies identified in the above charts are represented by the following acronyms: Federal Election Committee (FEC), Department of Energy (DOE), Department of Homeland Security (DHS), Department of Veteran Affairs (VA), and Department of Commerce (DOC). The percentages used in these charts have been rounded.

¹⁵ October 1, 2015 to July 13, 2016.

Findings

18F does not have a viable plan to achieve full cost recovery

Since its launch in March 2014, 18F has struggled financially. 18F’s current memorandum of agreement with FAS requires a plan to achieve full cost recovery of both direct and indirect costs in order to use the ASF to fund its operations. We found that 18F has not developed a viable plan to achieve full cost recovery.

We reviewed 18F’s annual reported revenue from its inception to mid-July 2016, and found 18F is operating at an increasing deficit level. In FY 2014, 18F spent \$8.65 million from the ASF for its operating expenses, but neglected to collect any revenue for work performed until FY 2015.¹⁶ In FY 2015, 18F spent \$31.76 million from the ASF to fund its operations, but only earned \$22.26 million in revenue that year, resulting in a net loss of nearly \$9.50 million. As of the third quarter ended June 30, 2016, 18F has spent over \$41.33 million from the ASF but has earned only \$27.82 million in revenue, resulting in a net loss to date of \$13.52 million. 18F’s cumulative net loss, from its launch in FY 2014 through the third quarter of FY 2016, is \$31.66 million (see Figure 3).

Annual 18F Net Operating Results for FY 2014, 2015, 2016

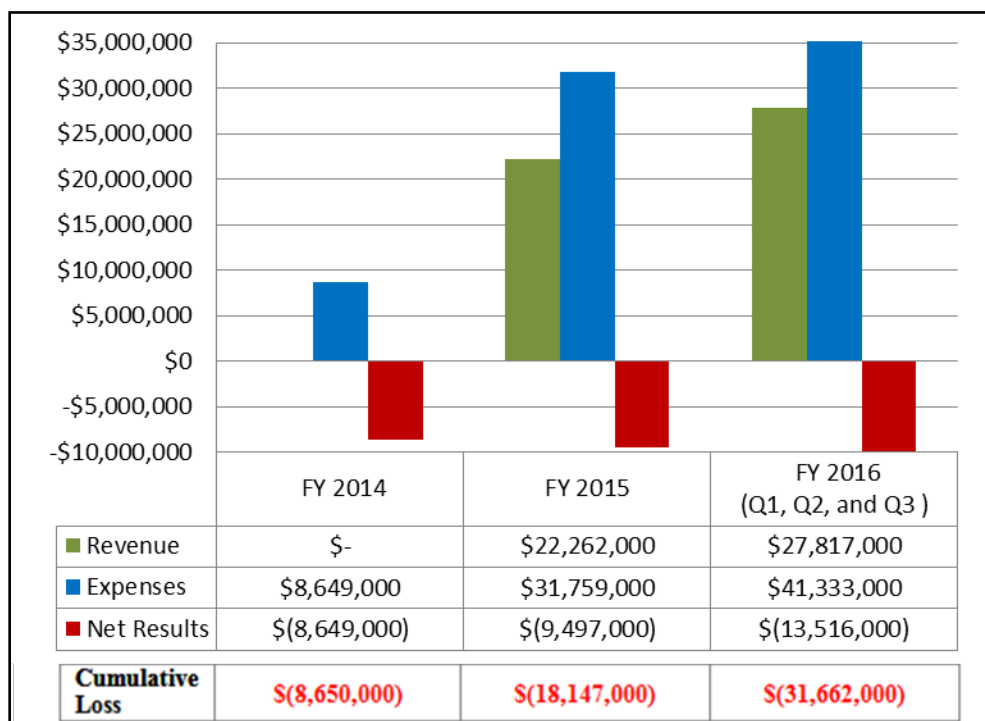


Figure 3. Graph of annual financial results for FY 2014, FY 2015, and FY 2016 (Q1, Q2, and Q3).

¹⁶ In fiscal year 2014, 18F’s performed work for clients but 18F did not submit collection information before the end of the fiscal year, so revenue of \$1.49 million wasn’t collected until fiscal year 2015.

We identified three factors that have contributed to 18F’s inability to achieve full cost recovery. These include 18F management’s established pattern of overestimating revenue projections, increased staffing levels, and staff time spent on non-billable activities.

Inaccurate financial projections

We reviewed 18F’s financial forecast models and found that 18F senior managers have established a pattern of overestimating revenue projections. In FY 2014, 18F senior managers projected annual revenue of \$4.76 million, but ended the year with zero revenue billed or collected. In FY 2015, 18F projected \$32.58 million in annual revenue, but ended the year with only \$22.26 million, a difference of 32% (\$10.32 million) less than projected. 18F has projected annual revenue of \$84.18 million for FY 2016; however, through the third quarter 18F has only generated \$27.82 million in revenue, leaving 18F one quarter to generate \$56.37 million in revenue to meet its projections (see Figure 4).

18F Projected Revenue versus Actual Revenue¹⁷

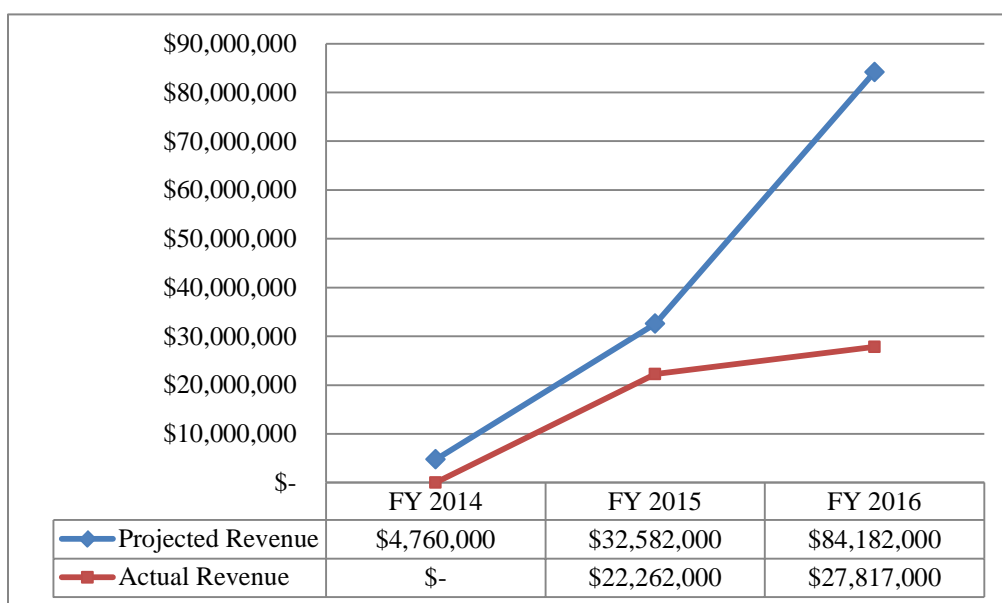


Figure 4. Graph of 18F’s projected revenue for all three fiscal years as compared to annual revenue actuals for FY 2014, FY 2015, and FY 2016 (Q1, Q2, and Q3).

In March 2016, OCFO and 18F developed a breakeven analysis using three scenarios based on varying billing rates, expense projections, staff utilization rates, hiring scenarios, and revenue forecasts.¹⁸ Under the “Best Case Scenario” in this analysis, 18F would break even in FY 2018, and end the year with a profit of \$7.43 million. Under the “Medium Case Scenario,” 18F would break even in FY 2019 with a year-end profit of \$1.06 million. Under the “Worst Case Scenario,” 18F would not break even before FY 2022.

¹⁷ Projected revenue for FY 2016 is for the entire year, whereas the actual revenue is only as of Q3 of FY 2016.

¹⁸ A breakeven analysis is conducted to determine the point where revenue equals expenses.

18F managers chose FY 2019 as their breakeven target, using the Medium Case Scenario. However, they revised that target date in July 2016 in light of up-to-date financial data. According to the newly revised scenario, 18F will not be able to break even until FY 2020, with a total year-end net profit of \$6.36 million.

We also found internal discussions by 18F senior management that raise doubts about their intent to break even. GSA records show that in discussions in February 2016 regarding the merits of the three breakeven scenarios, 18F’s Director of Operations stated, “to be frank, there are some of us that don’t give rip about the losses.” In response, the Regional Administrator for GSA’s Region 9, Andrew McMahon, stated, “Sure, in the end, I could care less. ASF loses money all over the place. That’s the decision we should reiterate with Denise [GSA Administrator Roth], do you care about losing +\$2.5M in order to bring in 100 more great hired [sic] into government?”

Administrator Roth and Deputy Administrator Adam Neufeld commented that the financial losses experienced by 18F are not unlike those for many other ASF-funded programs, in that GSA regularly decides to make investments that will lose money initially, with the intention of full recovery in the future. They noted that many ASF-funded GSA programs are not projected to break even in FY 2017 – with some not projected to break even in any of the next five years – and that GSA is in a market with many uncertainties, which are magnified in new investments like 18F. They also expressed disappointment with 18F’s past financial projections, and their intention to address the viability of its financial plan.

Increased Staffing

Over the past three years, increased staffing costs have been a significant driver of 18F’s overall financial position. 18F has continued to hire staff despite underperforming revenues. On April 1, 2014, shortly after its launch, 18F consisted of 33 staff. By March 24, 2016, 18F staffing levels reached a total of 201 full time employees – a more than 500% increase in staffing since 18F’s launch (see Figure 5).¹⁹ In May 2016, 18F management stated their objective was to grow to 215 staff by the end of FY 2016.

18F Staffing Levels

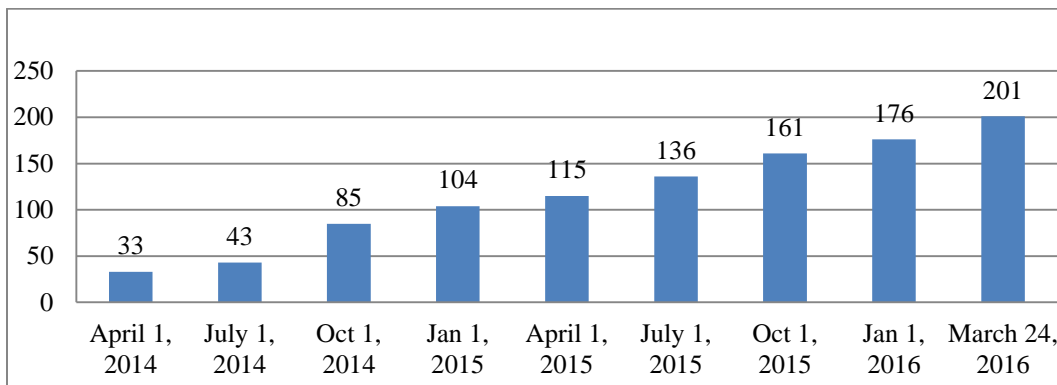


Figure 5. Graph of office staff levels over past three fiscal years.

¹⁹ As of March 24, 2016.

The office has used non-competitive hiring authorities to hire staff, primarily relying on time-limited term appointments to fill 93% of all staff positions.²⁰ 18F has staff at varying GS levels with the vast majority (79.6%) in positions at grades GS-14 and GS-15 (see Figure 6). Of the GS-14 and GS-15 staff, 95.6% are in time-limited term appointments.

18F Staff Grade Distribution		
GS Level	Head Count	% of Total
GS-7	5	2.49%
GS-9	2	1.00%
GS-11	3	1.49%
GS-12	6	2.99%
GS-13	24	11.94%
GS-14	41	20.40%
GS-15 ²¹	119	59.20%
SES	1	0.50%
Total	201	100.0%

Figure 6. Chart of 18F staff by General Schedule level.

OCFO’s FAS Budget Director told us that OCFO has held numerous meetings with GSA senior leadership and 18F senior management to discuss 18F’s struggle to reach a breakeven point. They discussed three approaches to affect the breakeven scenarios: to raise revenue, increase billable projects in order to increase overall billable time, and pause hiring to decrease overhead costs.

On at least three occasions the FAS Commissioner, Thomas Sharpe, also advised Administrator Roth and the former TTS Commissioner to pause hiring as a way for 18F to break even.²² GSA records show that in discussions in January 2016 regarding hiring, 18F managers acknowledged that continued hiring was not increasing revenue; however, a pause in hiring was not supported by 18F management or the Administrator's office. Administrator Roth wrote to FAS Commissioner Sharpe in January 2016, “Demand for 18F services continues to be strong, the utilization rate is increasing, and there is other activity in place that justifies staying the course on hiring at this time.” According to the Executive Director of 18F, Aaron Snow, 18F continued to hire to meet demand for projects because they did not have the staff in place to accept all project requests. Also, he wanted to ensure 18F had enough staff to mitigate the impact of occasional staff turnover. However, 18F records show that during the period of our review 18F staff spent more than half their time on non-billable projects.

²⁰ Most of 18F’s staff members were hired under two special hiring authorities: 5 CFR 213.3102(r), and Office of Personnel Management Schedule A, 213.3137(a). 5 CFR 213.3102(r) is a government-wide non-competitive hiring authority that authorizes federal agencies to fill positions in support of fellowship and similar programs that are selected from limited applicant pools, as well as industry experts. The Office of Personnel Management Schedule A 213.3137(a) is used to meet the need for digital service experts in the federal government. The 18F staff hired under these authorities are time-limited with a two year appointment, plus a two year extension option, not to exceed four years. 18F also has hired staff through the Schedule C and Peace Corps special hiring authorities, which are not technologist positions.

²¹ Twenty-seven of the GS-15 staff were hired at GS-15, step 10 grade levels, the highest pay grade available in the federal government under the General Schedule.

²² The OCSIT Associate Administrator became the TTS Commissioner in May 2016.

Allocation of staff time

Although 18F’s mission is to work for federal agencies, and their operating agreement with FAS requires full cost recovery of ASF funds used by 18F, we found less than half of staff time is spent working on projects billed to federal agencies.

According to the financial forecast model used to develop 18F’s billable rates, 18F’s revenue projections attempt to achieve a staff utilization rate of 50% to 53% for billable work in order to reach a breakeven point. According to 18F’s internal timekeeping system, from October 2014 through July 2016, 18F staff spent 48% of their time on billable projects and 52% of their time on non-billable activities (see Figure 7).²³

**18F Staff Hours Logged in Timekeeping System
October 1, 2014 through July 13, 2016**

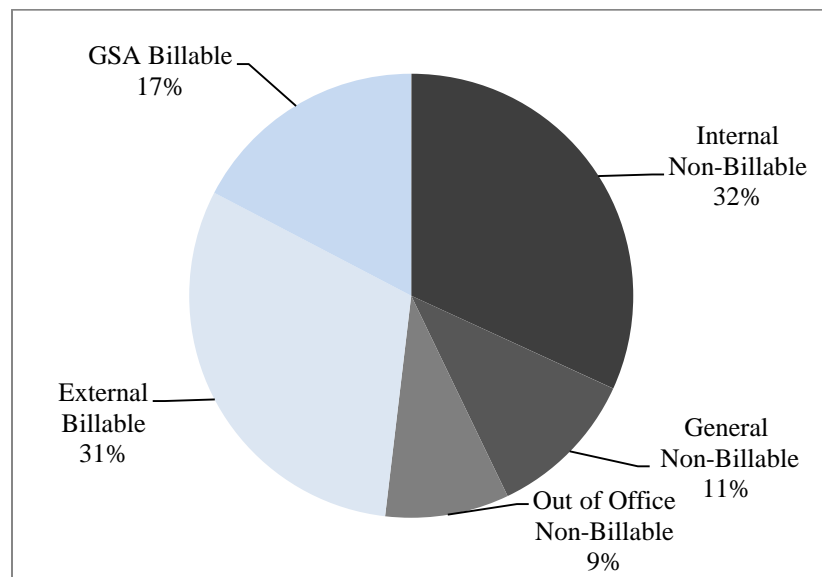


Figure 7. Percent of time 18F staff spent on billable work and non-billable work.

Billable hours logged in the timekeeping system are used to determine the costs incurred per project. 18F then bills the federal agency for the time staff has spent on the project at pre-established rates. 18F’s billing rates include direct costs, such as staff hours on projects, and indirect costs, such as overhead expenses which include non-billable hours.

Until July 2016, the 18F Handbook stated: “Non-billable work is the cultural lifeblood of 18F.”²⁴ According to Executive Director Snow, this statement exemplifies 18F’s commitment to professional development of staff and internal development of tools, which will in turn improve

²³ 18F’s agreement to use ASF funds requires it to establish management controls that require all hours be tracked for reimbursement. 18F developed and implemented a time keeping system called Tock for this purpose, which maintains records starting from October 1, 2014. 18F policy requires 18F staff to track their hours in Tock.

²⁴ According to the TTS Acting Commissioner, this statement was removed from the 18F Handbook in July 2016.

18F’s work with customer agencies. Non-billable hours include such work as 18F’s internal projects, training, staff annual and sick leave, and staff meetings. Examples of 18F’s non-billable internal projects as of July 2016 include:

- Outreach – 18F staff spent 13,989 hours (valued at an estimated \$2.34 million) promoting their projects and accomplishments through blog posts, websites, social media accounts, and speaking events.²⁵
- 18F Branding – Staff spent 727 hours (valued at an estimated \$140,104) developing the 18F brand. An example of one of their branding projects is the 18F logo change, seen below in Figure 8.

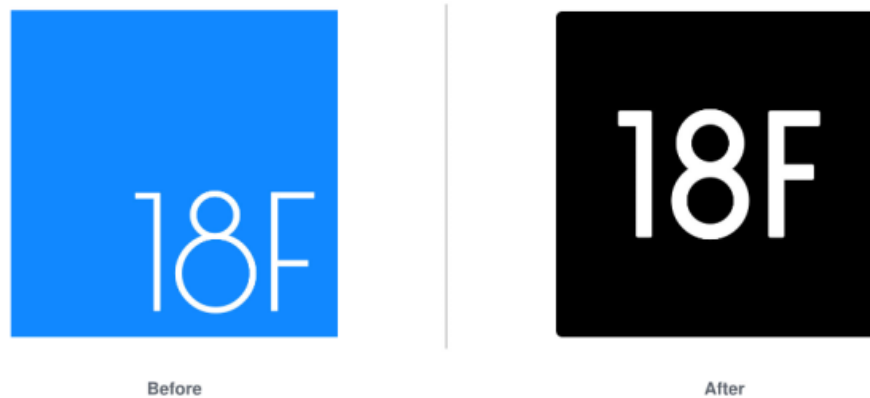


Figure 8. Before and after images of 18F’s logo change.

- Method Cards – Staff created flash cards to define 18F’s agile development approach and build a shared vocabulary among 18F staff and federal agencies. 18F staff spent 1,413 hours on the development of this project (valued at an estimated \$235,950).
- Tock – 18F staff spent approximately 245 hours (valued at an estimated \$43,971) on the development of this internal timekeeping system.
- Unreimbursed Details – Three 18F staff went on unreimbursed details for periods of six to 12 months, even though GSA records indicate that managers acknowledged this would hurt cost recovery efforts. The unreimbursed detailed staff earned salaries ranging from \$93,851 (GS-13 step 2) to \$160,300 (GS-15 step 10).
- State and Local Government work – 18F hired a full time Head of State and Local Government Practice at an annual salary of \$152,780. At the time, 18F was not authorized to perform work directly for state and local governments.

In addition, 18F staff reportedly spent about 20 hours, valued at an estimated \$4,148, on the creation of two “bots” (digital conversation agents that interact with a service, application, or website). In one instance, an 18F staff member customized a “bot” for use in 18F interoffice communications on Slack, an online messaging and collaboration application. The “Slackbot”

²⁵ The estimated values for the non-billable projects were calculated based on the hourly billable rates of 18F staff members who logged hours for these projects in 18F’s internal timekeeping system. The value represents an estimate of what could have been billed if the work was performed for a client.

polices a user’s text for the pronouns “guys,” “guyz,” and “dudes.” When the bot detects these pronouns, it prompts the user to consider replacing the pronoun with an option, like “team.”²⁶

The bot designer told us that the bot was intended to help cultivate a diverse and inclusive workplace. The 18F Executive Director told us that no approvals were needed from either 18F management or OGC in order to develop and deploy this customized bot. Figure 9 shows an 18F blog post demonstrating use of the bot.²⁷

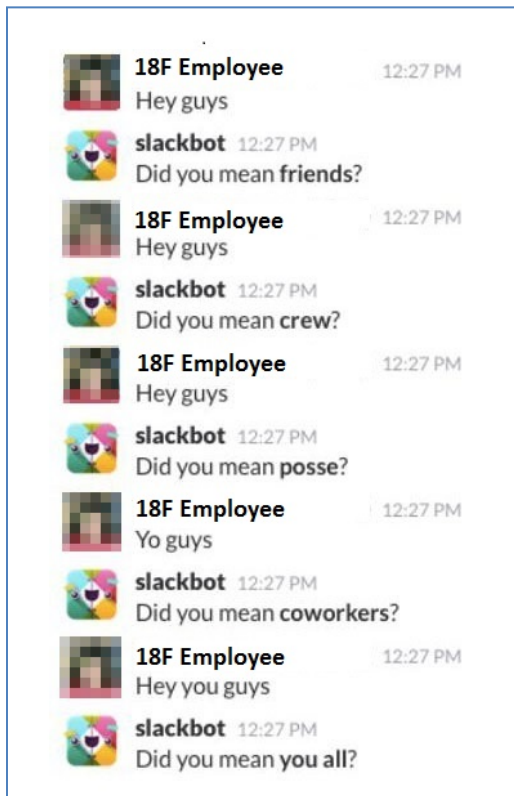


Figure 9. 18F's customized Slackbot in use, from a January 12, 2016 blog post. (Figure modified by OIG to blur photos and remove staff name.)

18F also created a bot called “Coffeemate,” which pairs 18F staff for coffee meet-ups. The 18F staff member who designed the bot stated it facilitates networking, sharing ideas, and creating an inclusive environment.

²⁶ The other words the bot suggests are: all, buds, compatriots, coworkers, crew, fellow humans, folks, friends, gang, mates, pals, people, posse, team, y'all, you all, mateys, persons of any kind, organic carbon based life-forms living on the third planet from the sun, comrades, and cats.

²⁷ <https://18f.gsa.gov/2016/01/12/hacking-inclusion-by-customizing-a-slack-bot/>

Inter- and intra-agency agreements are not properly executed

We also found deficiencies in 18F’s management of its agreements for reimbursement. We reviewed the 202 agreements 18F entered into between June 2014 and April 2016, including new agreements and modifications to existing agreements, and found many instances where 18F staff performed work before agreements were executed, outside specified periods of performance, and without required CIO approval. In addition, we found instances where agreements were never signed by all required parties.

18F must have an executed agreement in place before beginning work for federal agencies or with other GSA offices. According to July 2014 guidance given by GSA OGC to 18F management on interagency agreements,

“An Economy Act transaction should be evidenced by a written order or agreement in advance, signed by the responsible administrative officer of both the ordering agency and the servicing agency (i.e. GSA). The agreement must be made in advance because it requires a determination by the head of the ordering agency that the order is in the best interest of the U.S. government and that the goods or services ordered cannot be provided as conveniently or cheaply by a private entity.”

18F management communicates this requirement to its staff in several ways. The 18F Handbook states that, “18F is a fee-for-service organization...Under no circumstances does 18F do work without a signed, executed agreement in place.” Additionally, management emphasized this requirement during regular all hands meetings with 18F staff.

18F’s Handbook and operating procedures require that agreements with other agencies be executed by the authorized program and funding officials of both 18F and their clients. For agreements with other federal agencies and with GSA offices outside of TTS, 18F uses the Department of the Treasury’s standard Interagency Agreement (IAA). The IAA includes the following language:

“Actual work for this IAA may NOT begin until an Order has been signed by the appropriate individuals...”²⁸

For its agreements within TTS, 18F is required to complete a Memorandum of Understanding signed by both the TTS Commissioner and the Chief Financial Officer. Additionally, pursuant to the Federal Information Technology Acquisition Reform Act (FITARA), GSA’s CIO must review and approve any agreements for IT or IT services before the agreement is executed and work commences. According to its standard operating procedure for entering into internal agreements with GSA Offices, 18F staff must prepare a “FITARA Approval Memorandum” for the GSA CIO to sign, or indicate that the project does not require FITARA approval, before the program officials sign the agreement.

²⁸ Form 7600B states that the Program Officials of both parties sign to ensure that the scope of work is properly defined and can be fulfilled for the order. The fund approving officials must sign to certify that the funds are accurately cited and can be properly accounted for.

Work performed before agreement execution and outside of periods of performance

We found that in 50% (101) of 18F’s 202 project agreements, the period of performance predated execution of the agreements by 1 to 287 days. In addition, staff had logged billable hours for 50 of the 101 projects before finalization of the agreements. For example, as shown in Figure 10, for seven of these agreements, staff worked over 1,000 hours on each of the projects before the agreements were signed. By initiating work before finalization of agreements, 18F staff risked the ability to collect payment for at least 21,789.42 billable hours with an estimated value between \$1,285,576 and \$4,446,831.²⁹

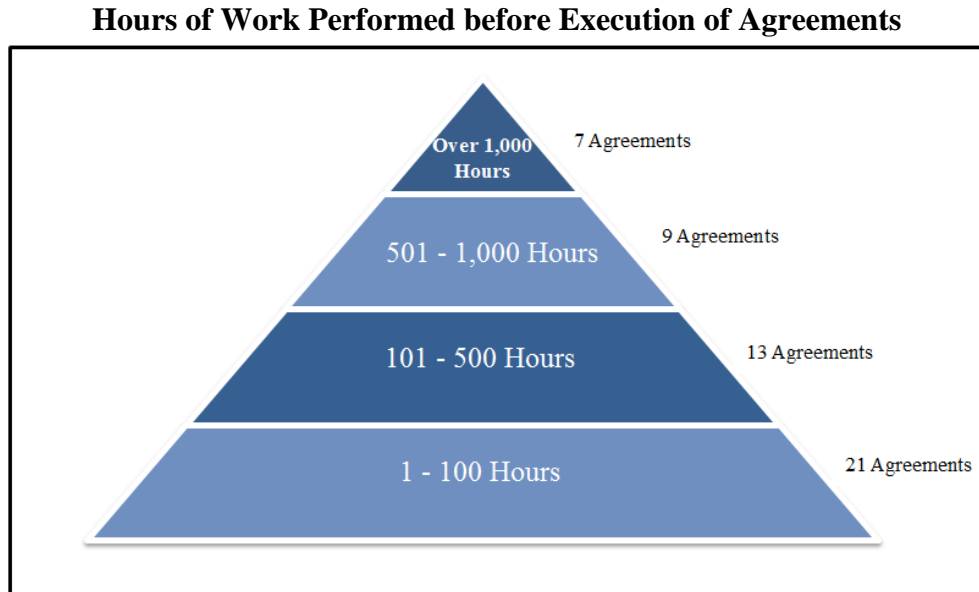


Figure 10. Chart displaying the number of hours staff worked per agreement, before the agreements were executed.

We also found that 12.4% (25) of the 202 agreements lacked one or more required signatures. These signatures certify that the scope of work is properly defined, verify the funds are accurately cited and obligated, and establish the official start date of the agreement.

In addition, we found that in 7% (14) of the 202 agreements, 18F had performed work outside the agreed periods of performance. 18F staff logged a total of 1,893.80 hours in their timekeeping system either before or after the periods of performance stated in the applicable agreements.

18F has demonstrated a pattern of ignoring advice from OGC, OCFO, and FAS about performing work only when an executed agreement is in place. We found that from July 2014 through June 2016, OGC advised 18F at least 22 times not to perform work without a fully

²⁹ Since 18F tracks staff billable time weekly, rather than daily, we were unable to determine the exact day that hours were logged for work on an agreement. 21,789.42 hours is a conservative estimate of hours logged. We estimated the value of these hours using 18F’s lowest historical billing rate of \$59 per hour for a GS-7 staff and 18F’s highest historical billing rate of \$205 for a GS-15 staff.

executed agreement in place. In the same time period, OCFO also advised 18F at least 13 times, and FAS advised 18F at least twice. In a recent email exchange, the FAS Budget Director told the 18F Operations Director and the 18F Agreements Lead on May 24, 2016:

“I will reiterate my previous concerns around starting work before the IAA is signed as it presents a risk to the financial integrity of our systems data and reports. I am concerned that this practice seems to be continuing despite the training and controls already in place. Based on the email from 4/26, the backlog of such agreements had been cleared. So it seems the controls are not functioning as intended. Please advise.”

A month earlier, on April 8, 2016, the FAS Budget Director had expressed similar serious concerns to Former TTS Commissioner Chrousos and the 18F Agreements Lead:

“I am concerned that this issue is continuing to occur, despite OCFO and OGC expressed concerns...OCFO cannot physically monitor 18F operations, yet we are certifying the acceptance of funds (and in this case the obligation of funds as the ASF is the requesting agency). Not only is this improper practice putting the financial management of the fund at risk but also the OCFO specifically.”

We asked 18F personnel why work was performed before the agreements were fully executed. The 18F Agreements Lead responded that “...the agreement process takes a significant amount of time to complete, between 35 and 65 days per agreement. This is due to reviews by GSA-OGC as well as an [sic] prolonged signature process in other agencies. [T]he speed of business and the need for 18F services is often immediate, requiring business units to make decisions about losing clients, and potential ability to recover costs, or starting work without an agreement in place.” In addition, the 18F Operations Director stated in an email to the FAS Budget Director that he understands the concerns about beginning work before an agreement is signed, “however, i do not expect that number to ever hit zero...the best that we can do is recognize that this has occurred and act to rectify the situation.”

OCFO’s Director of FAS Budget, however, has cautioned that when 18F performs work without an executed agreement, it assumes three serious risks: 1) a dispute that could hinder the program’s ability to recover costs; 2) accounting implications of performing work outside the proper period; and 3) the potential for augmentation of appropriations.³⁰

Internal agreements were not signed by CIO, as required by FITARA

In order to comply with FITARA, the GSA CIO must sign all 18F agreements with other GSA offices before work may begin. 18F began to require the CIO’s signature on its agreements with GSA offices on January 5, 2016.³¹

³⁰According to the Government Accountability Office’s Principles of Federal Appropriations Law, (GAO-06-382SP, Third Edition, Volume II, February 2006), “...an agency may not augment its appropriations from outside sources without specific statutory authority. When Congress makes an appropriation, it also is establishing an authorized program level. In other words, it is telling the agency that it cannot operate beyond the level that it can finance under its appropriation. To permit an agency to operate beyond this level with funds derived from some other source without specific congressional sanction would amount to a usurpation of the congressional prerogative.”

³¹ According to GSA IT, this requirement was implemented GSA-wide on January 15, 2016.

We reviewed all 16 agreements that 18F made with internal GSA offices since January 5, 2016. We found that the CIO gave written approval for 11 of the agreements. According to the 18F Agreements Lead, for the remaining five agreements the Chief Technology Officer provided a verbal approval rather than signing a “FITARA Approval Memorandum,” as required by the agreements’ standard operating procedure. Of these five agreements, one was valued at \$1.3 million, another at \$2.4 million, and the remaining three were each valued at \$100,000.

Inadequate controls lead to billing errors

We reviewed the billing support documentation for 10 closed agreements that we identified as at risk for improper billings because 18F staff performed work outside the stated period of performance.³² Based on the documentation provided by 18F, it appears that 18F failed to correctly bill its clients for six out of the 10 agreements we reviewed.³³ We found discrepancies that indicate:

- Two agreements were potentially undercharged by a total of \$5,479.67;
- Three agreements were potentially overcharged by a total of \$125,741.35; and
- One agreement was not charged, valued at \$4,100.

The unbilled agreement covered work (valued at \$4,100) performed by a Presidential Innovation Fellow for the Internal Revenue Service from October to December 2015 on a project to improve digital services for taxpayers. Upon the OIG’s review of this agreement, the GSA Financial Information and Operations Division staff alerted 18F about its unbilled status. We then found that in addition to the unbilled hours for October 20, 2015 to December 8, 2015, the Presidential Innovation Fellow had performed an additional 616 hours from December 13, 2015 to April 2, 2016, outside the agreed period of performance. 18F managers told us they are working with the Internal Revenue Service to execute an agreement to collect the outstanding \$48,321 due for these hours.

In addition to the six improperly billed agreements, 18F was unable to locate and provide documentation to support the amounts billed for two other agreements. As a result, we were not able to determine whether these agreements were appropriately charged to their client agencies.

The GSA Financial Information and Operations Division staff informed us that in FY 2014, and in the first and second quarters of FY 2015, 18F used Google documents to send billing requests for processing. However, these documents are no longer available in the system and cannot be found by 18F.

All Federal agencies are required to make and preserve records containing adequate and proper documentation of its organization, functions, policies, decisions, procedures, and essential

³² 18F staff worked outside of the agreed upon periods of performance for 14 of the 202 agreements we reviewed. 10 of the 14 were closed. We selected these 10 as our sample for our test of billing transactions.

³³ Our review of the billing for the 10 agreements was based on actual costs data provided by 18F: labor hours, infrastructure costs, and travel expenses for each project.

transactions. These records must be managed according to applicable authorities.³⁴ The 18F Finance Lead attributed the billing issues to staff timekeeping system changes after final invoices were issued, travel voucher submissions and corrections after final invoices were issued, and human error during the manual billing process.

18F lacks adequate controls over its billing process resulting in billing errors. When 18F improperly charges its clients, it risks violating the terms of its operating agreement by not collecting for all work performed.

Conclusion

18F's cumulative net loss from its launch in FY 2014 through the third quarter of FY 2016 is \$31.66 million. We found that 18F's plan to achieve full cost recovery has been unsuccessful because of inaccurate financial projections, increased staffing levels, and the amount of staff time spent on non-billable activities. 18F managers have repeatedly overestimated revenue and, with the support of the Administrator's office, hired more staff than revenue could support. In addition, 18F staff spent over half of their time on non-billable projects. 18F managers have recently revised their projected breakeven date from 2019 to 2020.

This evaluation also found that 18F staff have been performing work before inter-agency agreements were properly executed and outside of agreed upon periods of performance. Additionally, agreements lack signatures from required signatories, risking the validity of the agreements. Finally, 18F's manual billing process and untimely timekeeping and expense recording resulted in a series of inaccurate charges to their clients. If billing discrepancies are left unresolved, GSA could be held accountable for augmenting appropriations for other federal agencies.

Recommendations

GSA leadership should:

1. Establish a viable plan to ensure full cost recovery of ASF funds expended by 18F.
2. Ensure that internal 18F projects have appropriate supervisory review.
3. Implement controls over 18F's reimbursable agreement process to ensure that work is not performed outside of a fully executed agreement.
4. Ensure that GSA CIO reviews and approves, in writing, all 18F IT-related work performed for GSA internal organizations.
5. Implement a comprehensive review of 18F's past work to ensure accuracy of all billings.
6. Establish reliable internal controls to ensure that 18F's future billings are accurate.
7. Ensure that 18F's billing records are retained in accordance with GSA records management standards.

³⁴ The Federal Records Act of 1950, as amended (44 U.S.C §3101).

Objectives, Scope, and Methodology

The objectives of this evaluation were to: 1) describe the 18F mission, lines of business, business model, and operations; 2) review 18F's agreements with customers to determine adequacy of controls; 3) determine the viability of 18F's business model and if it operates within the requirements of its funding source (ASF); 4) determine what, if any, work 18F has performed directly for state and local governments; and 5) determine the accuracy and reliability of 18F's billing process, including internal controls.

In order to accomplish our objectives, we:

- Interviewed agency management and staff responsible for processing agreements and client billing, as well as certain 18F program staff. We also interviewed members of GSA offices that interact with 18F, including the Office of General Counsel, Office of the Chief Financial Officer, Federal Acquisition Service, GSA IT, and the Chief Information Officer;
- Reviewed 18F's billing and agreements process with staff responsible for those areas;
- Reviewed 18F's policies and procedures for billing and agreement processes;
- Reviewed federal law and regulations relevant to 18F's funding, hiring, agreements, billing, and work for state and local governments;
- Reviewed 18F's financial documentation, including forecasts and actuals;
- Reviewed documentation supporting program formation and development; and
- Reviewed and summarized 18F's self-reported internal timekeeping system, called Tock.

To review 18F's agreements, we relied on 18F's management's "Agreements Tracker," which, according to 18F managers, is the authoritative source of documentation for agreements. We identified 202 agreements, for the period June 2014 to April 2016, including modifications, and reviewed all 202. To test agreements, we reviewed the signatures and dates of 18F and their clients, periods of performance for agreements, and the related staff hours logged in Tock.

To review 18F's billing process, we selected a sample of ten agreements which we had identified during our agreements test work as having work performed outside of periods of performance in the agreement. We relied on internal documentation developed by 18F to create invoices to their clients, and documentation from the Office of the Chief Financial Officer to support the amount billed to clients via Intra-Government Payment and Collection. Although our test work found serious issues, our sample was judgmentally selected and therefore the results cannot be generalized to the total population of agreements and related billing.

Our evaluation was conducted from December 2015 through September 2016 in accordance with the Council of the Inspectors General on Integrity and Efficiency (CIGIE) *Quality Standards for Inspection and Evaluation*.

Appendix: Management Comments



Technology Transformation Service

October 21, 2016

MEMORANDUM FOR PATRICIA D. SHEEHAN
ASSISTANT INSPECTOR GENERAL FOR INSPECTIONS
OFFICE OF INSPECTIONS AND FORENSIC AUDITING (JE)

FROM: DAVID SHIVE
ACTING COMMISSIONER
TECHNOLOGY TRANSFORMATION SERVICE (T)

SUBJECT: Response to Draft Report: *Evaluation of 18F* (JEF16-005-000)

Thank you for the Office of Inspector General's evaluation of the Technology Transformation Service's (TTS) Office of 18F (JEF16-005-000). GSA leadership and I appreciate your thorough review, and we agree with your recommendations. We have made many improvements over the last few months to address the issues outlined in this report and will take all additional actions necessary to improve the service.

In its short existence, 18F has demonstrated the value of a modern approach to delivering technology. To date, 18F has worked on more than 252 projects with 37 different agencies across the government to help them deliver on their mission in a user-centered way at significant cost savings for the American taxpayer. 18F has worked on key projects across the Government, from developing a website for the U.S. Department of Education that assists people in choosing colleges, to helping the U.S. Department of the Treasury increase the transparency of Federal spending. It has also helped the U.S. Department of Health and Human Services work with the State of California to approach its procurement of a child welfare system more effectively, saving millions while better serving children.

While 18F's value proposition is clear, we must continue to refine business operations to ensure the organization achieves full cost recovery, and we share your concern with certain activities to date. Consistent with your recommendations, we have taken significant steps to strengthen our efforts towards full cost recovery. Earlier this year, we instituted an escalated review for any new hires, and we ensure new hires are justified by billable work. We also created dashboards that allow for greater real-time management of financial performance and staff utilization. We are also putting in place greater controls over non-billable work and improving our allocation of staff to projects. The Administrator reviews our performance at least quarterly to ensure progress. In cooperation with the GSA Office of the Chief Financial Officer (OCFO), we completed a

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reconciliation of all existing agreements and addressed any anomalies and errors that were identified.

We also updated our financial plan as part of the annual budget process. Like many investments funded out of the Acquisition Services Fund, 18F's cost recovery plan is structured to build to long-term financial sustainability over time. Since the creation of 18F's unique offering, we have learned much about customer demand, which has allowed us to continue to improve 18F's business strategy. We have seen significant positive signs, including a 69% percent increase in revenue in fiscal year (FY) 2016 from FY 2015. With this and other information, we worked with the OCFO to develop a detailed financial plan to achieve full cost recovery by FY 2019.

We have also already taken significant steps to strengthen 18F's internal controls, and we share your view that past practices and controls were insufficient. We brought in an independent third party to review our financial processes and controls, and we are in the process of implementing enhancements. We have instituted procedural and technical controls around interagency agreements, including review of agreements by the OCFO and General Counsel, and we are also amending our timekeeping system to detect any work being done outside of the performance period or without signed agreements. We have conducted a reconciliation of past interagency agreements to ensure accurate billing, and we have transitioned to monthly customer billing and expense accruals to identify errors in a more timely fashion.

We are also making organizational changes to improve operations. While I continue as Chief Information Officer, the Administrator has also detailed me to serve as the TTS Acting Commissioner to oversee the implementation of additional operations management controls. We have standardized the relationship between TTS and the Office of the Chief Information Officer (OCIO) by, among other things, creating a lead in the OCIO who reviews all internal technology projects. In addition, the CFO is in the process of establishing dedicated resources to support TTS, which will help strengthen financial operations even further. Finally, we have created a Chief Operating Officer position within TTS to ensure ongoing focus on internal operations.

Thank you again to you and your team for your thorough review. We are committed to the ongoing focus and continuous improvement required to strengthen 18F so it can fulfill its critical mission. This will be a key priority for the new TTS Commissioner, and we look forward to continued input from and oversight by the Inspector General to ensure 18F's success. If you have any questions regarding these comments, please contact me at (202) 527-5804 or david.shive@gsa.gov, or Ms. Sarah Crane at (202) 309-4661 or sarah.crane@gsa.gov.