United States Government Accountability Office

Report to Congressional Requesters

April 2020

TELECOMMUNICATIONS AND CALL CENTERS

Observations on Federal Contracting Practices

Accessible Version

GAO-20-291

GAO Highlights

Highlights of GAO-20-291, a report to congressional requesters

View GAO-20-291. For more information, contact William T. Woods at (202) 512-4841 or woodsw@gao.gov, or Cindy S. Brown Barnes at (202) 512-7215 or brownbarnesc@gao.gov

April 2020

TELECOMMUNICATIONS AND CALL CENTERS

Observations on Federal Contracting Practices

Why GAO Did This Study

The federal government relies on an extensive global telecommunications network to carry out operations and provide information to the public. These networks and call centers, which handle public inquiries, are often maintained or supported by contractors. Concerns have been raised about the extent to which federal contractors are subcontracting or offshoring work, and have in place worker protections and mechanisms to secure the technologies and the data they handle.

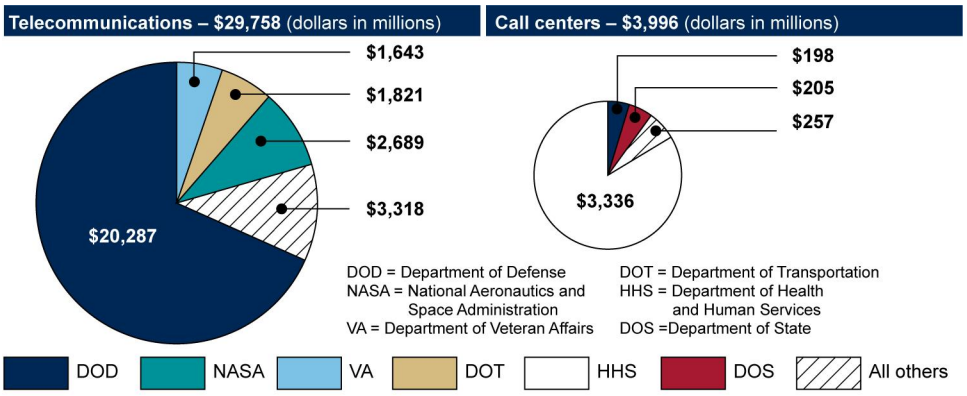
GAO was asked to review aspects of contracting for federal telecommunications and call centers, including the extent of subcontracting and offshoring. This report provides information on, among other things (1) federal obligations on telecommunications and call center contracts, (2) worker protections identified in selected contracts, and (3) data security and privacy protections identified in selected contracts.

GAO analyzed federal procurement data for fiscal years 2014 through 2018 (the most recent available), reviewed a nongeneralizable sample of five contracts from three agencies with significant telecommunications and call center procurements to identify worker protections and data security and privacy protections; and interviewed relevant officials and federal contractors about contracting and industry trends.

What GAO Found

The federal government obligated over $30 billion for telecommunications contracts and almost $4 billion for call center contracts from fiscal years 2014 through 2018. On average for the 5-year period, telecommunications and call center obligations were a nominal portion of total federal spending—accounting for 1.2 percent and less than 0.2 percent, respectively. Defense agency obligations accounted for the majority of federal telecommunications spending to support a range of information capabilities across the full spectrum of military operations. The Department of Health and Human Services accounted for the majority of call center obligations to support customer inquiries about Medicare and the health insurance marketplace, among other services.

Defense and Civilian Agency Obligations for Telecommunications and Call Center Contracts—Fiscal Years 2014 through 2018



Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-291

Data table for Defense and Civilian Agency Obligations for Telecommunications and Call Center Contracts—Fiscal Years 2014 through 2018

Telecommunications

Department of Veteran Affairs	Department of Transportation	National Aeronautics and Space Administration	All others	Department of Defense
1,643	1,821	2,689	3,318	20,287

Call centers

Department of Defense	Department of State	All others	Department of Health and Human Services
198	205	257	3,336

Note: Obligations adjusted for inflation to fiscal year 2018 real dollars.

Federal procurement data systems do not collect information that can provide insight into the extent of subcontracting or offshoring—including for telecommunications and call center contracts—because they were not designed to do so. GAO's review of selected contracts found that four of the five contracts expressly stated that some or all work must be performed within the continental United States or by U.S. citizens.

GAO identified several examples of worker protection requirements in the five selected contracts, generally falling into the areas of wages and hours, workplace safety and health, and protections against certain employer actions. With regard to data security and privacy protections, the five selected contracts GAO reviewed included requirements to limit access to data systems and data maintained, establish security management procedures for and monitoring of data systems, or establish contingency plans for how to provide continued or restored services when system interruptions or problems occur.

Contents

Tables

Figures

Abbreviations

BLS	Bureau of Labor Statistics
CMS	Center for Medicare and Medicaid Services
DFARS	Defense Federal Acquisition Regulation Supplement
DISA	Defense Information Systems Agency
DHS	Department of Homeland Security
DOD	Department of Defense
DOL	Department of Labor
eSRS	Electronic Subcontract Reporting System
FAR	Federal Acquisition Regulation
FSRS	Federal Funding Accountability and Transparency Act Subaward Reporting System
FISMA	Federal Information Security Modernization Act
FPDS-NG	Federal Procurement Data System-Next Generation
GSA	General Services Administration
HHS	Department of Health and Human Services
IT	information technology
NASA	National Aeronautics and Space Administration
NIST	National Institute of Standards and Technology
NAICS	North American Industry Classification System
OMB	Office of Management and Budget
VA	Department of Veterans Affairs

U.S. GOVERNMENT ACCOUNTABILITY OFFICE
441 G St. N.W.
Washington, DC 20548

April 13, 2020

Congressional Requesters

The federal government relies on an extensive and globalized telecommunications network that includes systems and equipment to communicate by wireline, wireless, satellite, and cable to carry out the operations of the government and provide information to the public.[1] In addition, call centers are an essential component of federal agencies' operations, enabling them to directly connect with the public to handle inquiries.[2] The telecommunications networks and call centers rely on a vast array of workers to operate and maintain the underlying systems and equipment and respond to inquiries. Ensuring the workplace safety and health of these workers and securing the technology and data maintained are essential to protecting national security, ensuring continuity of government operations, and maintaining accurate information. Recent efforts by the Congress and the executive branch to prohibit the use of certain telecommunications equipment and services produced or provided by specific foreign vendors highlight concerns about federal contracting for telecommunications. In addition, many federal systems, such as those used by federal call centers that interact with the public, maintain personally identifiable information that must be protected to ensure the confidentiality, integrity, and availability of this information and effectively respond to data breaches and security incidents, when they occur.[3]

You asked us to review certain aspects of federal telecommunications and call center contracting, including observations on the extent and effect of offshoring—which generally refers to obtaining goods or services through non-U.S.-based subcontractors. This report discusses: (1) total federal obligations on telecommunications and call center contracts for fiscal years 2014 through 2018; (2) worker protections identified in selected telecommunications and call center contracts; and (3) data

[1]For the purposes of this report, "telecommunications" encompasses the preparation, transmission, communication or related processing of information that can be in the form of voice, video, or data.

[2]For the purposes of this report, we define "call centers" to include centers handling inquiries via multiple channels such as telephone, web page, e-mail, and postal mail.

[3]Personally Identifiable Information is any information that can be used to distinguish or trace an individual's identity, such as name, date and place of birth, or Social Security number, and other types of personal information that can be linked to an individual, such as medical, educational, financial, and employment information.

security and privacy protection requirements identified in these contracts. In addition, we are including information on employment trends for the telecommunications and call center industries for calendar years 2014 through 2018 in appendix I.

To determine the level of federal obligations on telecommunications and call center contracts, we extracted the most recent data available from the Federal Procurement Data System-Next Generation (FPDS-NG) for fiscal years 2014 through 2018, using the North American Industry Classification System (NAICS) codes for these industry sectors.

To identify examples of worker protections and data security and privacy protections in federal contracts, we selected a nongeneralizable sample of five contracts from three agencies with some of the highest obligations for telecommunications and call center contracts during fiscal years 2014 through 2018. Specifically, we selected (1) the Department of Defense (DOD) because it obligated the highest amount for telecommunications contracts; (2) the Department of Health and Human Services (HHS) because it obligated the highest amount for call center contracts; and (3) the General Services Administration (GSA) because it provides a government-wide contract available for agencies to place orders for telecommunications and call centers. We then identified the component within each agency that obligated the most for these services or that provides a large government-wide contract vehicle. The components were DOD's Defense Information Systems Agency (DISA), HHS's Center for Medicare and Medicaid Services (CMS), and GSA's Federal Acquisition Service. We selected five contracts, which included a variety of telecommunications and a call center:

- DISA's DOD Information Network services contract to provide day-to-day support for information capabilities across the spectrum of military operations;
- DISA's Emergency Preparedness Telecommunications Services contract to provide priority wireless communications for U.S. government leaders in the event of massive wireless network congestion;
- CMS's call center contract to provide management and staffing of call centers to respond to beneficiary inquires about Medicare and consumer inquiries about the Health Insurance Marketplace;
- GSA's Networx services contract to provide voice and data, wireless, and management and application services, including video and audio

conferencing, as well as mobile and fixed satellite services for federal agencies; and

- GSA's Alaska telecommunications services contract to provide video and data transmission and analog and digital phone services in various locations across Alaska.

We reviewed documentation from the five selected contracts, along with the relevant federal acquisition regulations for worker protections, data security and privacy protections, subcontracting, and offshoring. We interviewed cognizant contracting officials to clarify our understanding of the contract requirements we identified. We also met with contractor representatives for the selected contracts to obtain their insights into contracting with the government, relevant contract requirements, and industry trends. Findings from our review of the selected contracts are not generalizable, but provide illustrative examples of the types of worker protections and data security and privacy protections that are included in federal telecommunications and call center contracts.[4]

To provide information on employment trends in telecommunications and call centers and how these trends were affected by offshoring, we reviewed employment data from the Bureau of Labor Statistics (BLS) within the Department of Labor (DOL), performed a literature review of selected economic research and other relevant articles, and discussed the results with DOL officials. The research provided some insights on the potential types of effects of offshoring on the telecommunications and call center industries, but provided no information regarding the extent of the impact. Because of this and other data limitations, we were unable to determine the extent to which offshoring may be occurring and the effects of offshoring on the telecommunications and call center industries.

We conducted this performance audit from March 2019 to April 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions

[4]Some worker protection and data security and privacy protection requirements may be required by law, executive order or regulation. We did not attempt to determine whether or to what extent the contract requirements and clauses we identified were required, nor did we evaluate whether they complied with any applicable laws, executive orders, or regulations. We also did not assess whether any applicable requirements or clauses were omitted from the contracts.

based on our audit objectives. See appendix II for further details on our scope and methodology.

Background

Federal Procurement for Telecommunications and Call Centers

The federal government relies on commercial communications networks to obtain various services, including video conferencing, local and long-distance telephone calls, email, text messages, file transfers, and more. Much of the communications infrastructure is owned or operated by commercial entities. Similarly, federal agencies rely on call centers (also known as contact centers) to handle public inquiries on government programs and services, such as Medicare. These centers utilize automated and live telephone response systems, websites, and trained customer service representatives to provide information to the public.

Agencies that contract with industry to meet their telecommunications and call center needs report information about these contracts and their obligations in FPDS-NG—the federal government's primary database for contract information at the prime contract level. When reporting contract data, agencies report information on the type of product or service being purchased as well as the NAICS code that best describes the principal purpose of the product or service being acquired. See table 1 for a description of the industry categories for businesses that provide telecommunications and call center goods or services.

Table 1: North American Industry Classification System (NAICS) Codes Used for Telecommunications and Call Center Industries

NAICS code	Category	Description
517311	Wired	Businesses that provide transmission of voice, data, text, and sound for local and long-distance calling, closed-circuit television, cable television, broadband internet service
517312	Wireless (except satellite)	Cellular phone service and wireless internet providers
517410	Satellite telecommunications	Service providers that forward or receive communications via satellite systems or resell satellite telecommunications services
517911	Telecommunications resellers	Service providers that purchase access and network capacity from telecommunications owners and operators and resell wired and wireless services (except satellite) to businesses and consumers

NAICS code	Category	Description
517919	All other telecommunications	Specialized telecommunications services such as voice over internet protocol and internet service providers
561422	Telemarketing Bureaus and Other Contact Centers	Operate call centers that initiate or receive communications for others via telephone, email, or other communications for purposes such as providing information or assistance to public inquiries

Source: GAO presentation of information from the North American Industry Classification System Manual. | GAO-20-291

In addition to FPDS-NG, the federal government has developed other contract reporting systems to collect contracting information related to subcontracting.

- The Electronic Subcontract Reporting System (eSRS) was created in 2005 to streamline contractors' reporting of progress toward meeting the small business subcontracting goals in their subcontracting plans and to facilitate agency oversight. The Federal Acquisition Regulation (FAR) generally requires that contractors be required to submit an acceptable subcontracting plan when they are awarded a contract that exceeds $700,000 and is expected to have subcontracting possibilities.[5] Depending on the individual contract, the system may contain subcontracting information reported by both the prime contractor as well as multiple subcontractors.
- The Federal Funding Accountability and Transparency Act Subaward Reporting System (FSRS) was created in 2010 to provide transparency about federal spending. Prime contractors must register and report subcontract information for first-tier subcontractors, as applicable. Information on subcontracts awarded by first-tier subcontractors to other entities, or lower-tier subcontractors, is not required.
- USASpending.gov was created in 2007 to promote transparency by providing the public with information about where and how federal dollars are spent. USASpending.gov contains prime contract award data from FPDS-NG and subcontract information from FSRS.

Laws and Technology Standards to Protect Federal Communications Data

Telecommunications and information technology (IT) fields have been merging in recent years due to integration of the technologies and

[5]Federal Acquisition Regulation (FAR) subpart 19.7. Prime contractors must also require subcontractors that receive subcontracts in excess of $700,000 ($1.5 million for construction) to adopt a subcontracting plan. See FAR § 19.704(a)(9).

combined operational management of their functions. Federal telecommunications systems can include a multitude of IT equipment and products, as well as services, such as managed network services and IT security services. In addition, telecommunications include such broadband internet services.

The Federal Information Security Modernization Act (FISMA) of 2014 provides a comprehensive framework for ensuring that effective information security controls are put in place for information resources and assets that support federal operations and for ensuring the effective oversight of the security of the information.[6] Under FISMA, the Office of Management and Budget (OMB) is responsible for overseeing agency information security policies and practices.[7] To implement FISMA, the National Institute of Standards and Technology (NIST)—a component within the Department of Commerce—developed standards and guidelines for agencies to use to help manage information security risks. Both FISMA and OMB require agencies to comply with applicable NIST standards and guidelines.[8]

The NIST framework has many components, but generally provides guidance to agencies to manage information security risks for communication and information technology networks. The framework emphasizes that an organization needs to develop and implement appropriate safeguards to ensure delivery of critical services. To accomplish this goal an agency generally must be able to

- develop an organizational understanding to manage cybersecurity risk,
- develop and implement appropriate safeguards to ensure delivery of critical services,
- identify cybersecurity events,

[6]Federal Information Security Modernization Act of 2014, Pub. L. No. 113-283 (Dec. 18, 2014), amending the E-Government Act of 2002, Pub. L. No. 107-347, Title III (Dec. 17, 2002). As used in this report, FISMA refers to the new requirements in FISMA 2014 and to other relevant FISMA 2002 requirements that were unchanged by FISMA 2014 and continue in full force and effect.

[7]44 U.S.C. § 3553. See also 44 U.S.C. § 3502.

[8]See 44 U.S.C. § 3551, et seq.; OMB Circular A-130, *Managing Federal Information as a Strategic Resource* (July 28, 2016). See also 15 U.S.C. § 278g-3.

- mitigate those events, and
- restore system capabilities or services that were impaired due to a cybersecurity event.

NIST publications can help agencies mitigate potential risks by providing approaches on how to manage or resolve information technology risks. For example, NIST states that agencies should conduct continuous threat monitoring and suggests control activities to implement to help manage supply chain risks, among other things.[9] Some of the controls that NIST recommends are

- **access controls**—authentication requirements and physical access controls to limit or detect inappropriate access to data, equipment, and facilities;
- **security management controls**—establish a framework and continuous cycle for assessing data systems for security weaknesses, implementing security procedures, and monitoring the procedures to ensure adequate protection of sensitive or critical resources; and
- **contingency planning and restoration of services**—planning for how to provide continued or restored services when system interruptions or problems occur.

Federal Laws and Regulations to Protect Workers

Various federal laws exist to protect workers, establishing requirements related to wages, hours worked, and worker safety and health, among other things. Some of these laws apply specifically to federal contractors, although the requirements may vary depending on factors such as the type and size of the contract. For example, the Service Contract Act establishes minimum wage, fringe benefit, and safety and health requirements for covered federal service contractors.[10] Telecommunications service contracts are exempt from the Service Contract Act, but call center contracts may be subject to it.[11] Similarly, the

[9]NIST SP 800-39, NIST SP 800-53 (Rev.4), and NIST SP 800-161.

[10]McNamara-O'Hara Service Contract Act of 1965, Pub. L. No. 89-286 (Oct. 22, 1965), as amended; 41 U.S.C. § 6701, et seq. See 29 C.F.R. § 4.1b.

[11]See 41 U.S.C. § 6702. DOL issued a decision that the Networx contract is subject to the Service Contract Act. GSA officials said that they disagree with this decision. GSA submitted a motion for reconsideration in September 2019.

Walsh-Healey Act establishes minimum wage, overtime, and workplace safety and health requirements for covered federal supply contractors.[12]

Contractors are also generally subject to a number of non-discrimination and equal employment opportunity requirements under an executive order and federal laws. For example, covered contractors and subcontractors are prohibited from discriminating in employment based on race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or status as a protected veteran. In addition, covered contractors and subcontractors generally are prohibited from discriminating against applicants or employees because they inquire about, discuss, or disclose their compensation or that of others, subject to certain limitations. Along with laws that apply specifically to federal contractors, worker protection requirements of other federal laws may also apply, such as the Fair Labor Standards Act or the Occupational Health and Safety Act.

Federal contractors are also generally subject to the requirements set forth in the FAR, which provides uniform policies and procedures for acquisition by executive agencies. Specifically, Part 22 of the FAR, Application of Labor Laws to Government Acquisitions, establishes various labor-related requirements for federal contractors and implements applicable requirements, as described above. Federal contractors may also be subject to specific department or agency regulations. For example, when contracting with DOD, contractors must comply with applicable contract provisions and clauses from the Department of Defense Federal Acquisition Regulation Supplement (DFARS), such as clauses incorporated pursuant to DFARS Part 222, Application of Labor Laws to Government Acquisitions. FAR clauses in the prime contract can indicate whether the contractor's requirements will flow down to its subcontractors. FAR flow-down clauses may be mandatory or discretionary, and are subject to other considerations such as whether a subcontract is performed extraterritorially.

[12]Walsh-Healey Public Contracts Act of 1936, Pub. L. No. 74-846 (June 30 1936), as amended; 41 U.S.C. § 6501, et seq.

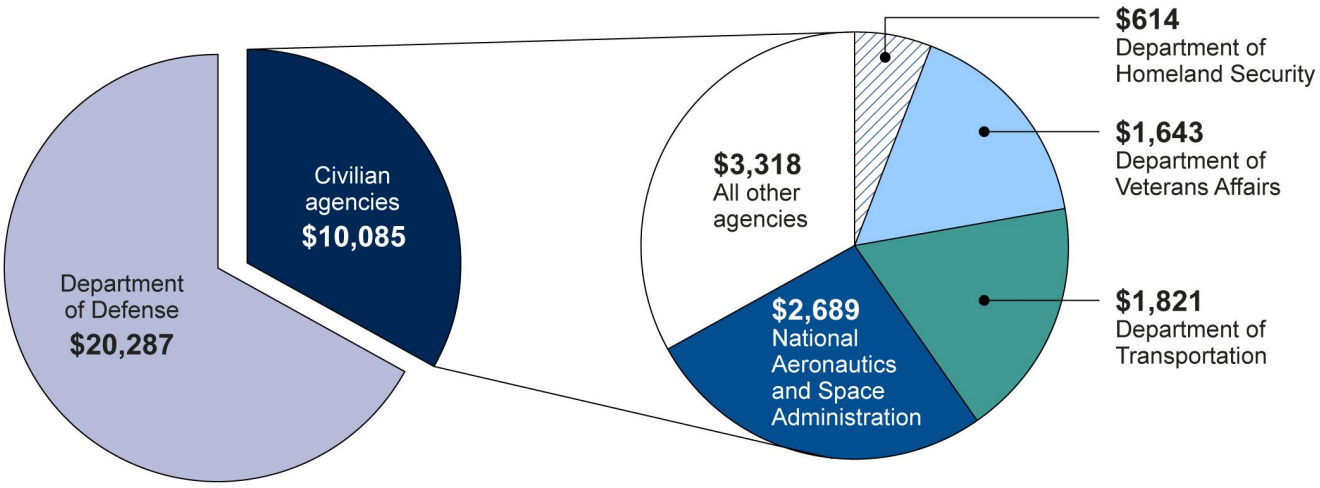
Total Obligations Were Consistent across Recent Years for Both Telecommunications and Call Center Contracts; Data on Subcontracting and Offshoring Are Limited

Federal Obligations for Telecommunications Averaged $6 Billion Annually

Federal agencies reported obligating a total of over $30 billion to acquire telecommunications products and services during fiscal years 2014 through 2018. Telecommunications spending accounted for 1.2 percent of total federal obligations for the 5-year period. Over these five years, the majority of the government-wide telecommunications obligations—84 percent—were awarded for services, such as internet and satellite services with the remainder going to products.

In fiscal year 2018, federal agencies reported obligating $6.2 billion to acquire telecommunications products and services—an amount that is consistent with the preceding 4 fiscal years. DOD accounted for about two-thirds of this amount and civilian agencies for roughly one-third. These obligation levels are consistent with the previous 4 fiscal years. Within DOD, DISA—which has responsibility for providing, operating, and assuring command and control and information-sharing capabilities across the full spectrum of military operations—had the highest obligations for telecommunications services and products. Among civilian agencies, the National Aeronautics and Space Administration, the Department of Transportation, and the Department of Veterans Affairs had the highest obligations. These three agencies consistently had the highest obligations in each of the previous 4 fiscal years. Defense and civilian agencies' obligations for telecommunications for the 5-year period are shown in figure 1.

Figure 1: Defense and Civilian Agency Obligations for Telecommunications Contracts—Fiscal Years 2014 through 2018 (in millions)



Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-291

Data table for Figure 1: Defense and Civilian Agency Obligations for Telecommunications Contracts—Fiscal Years 2014 through 2018 (in millions)

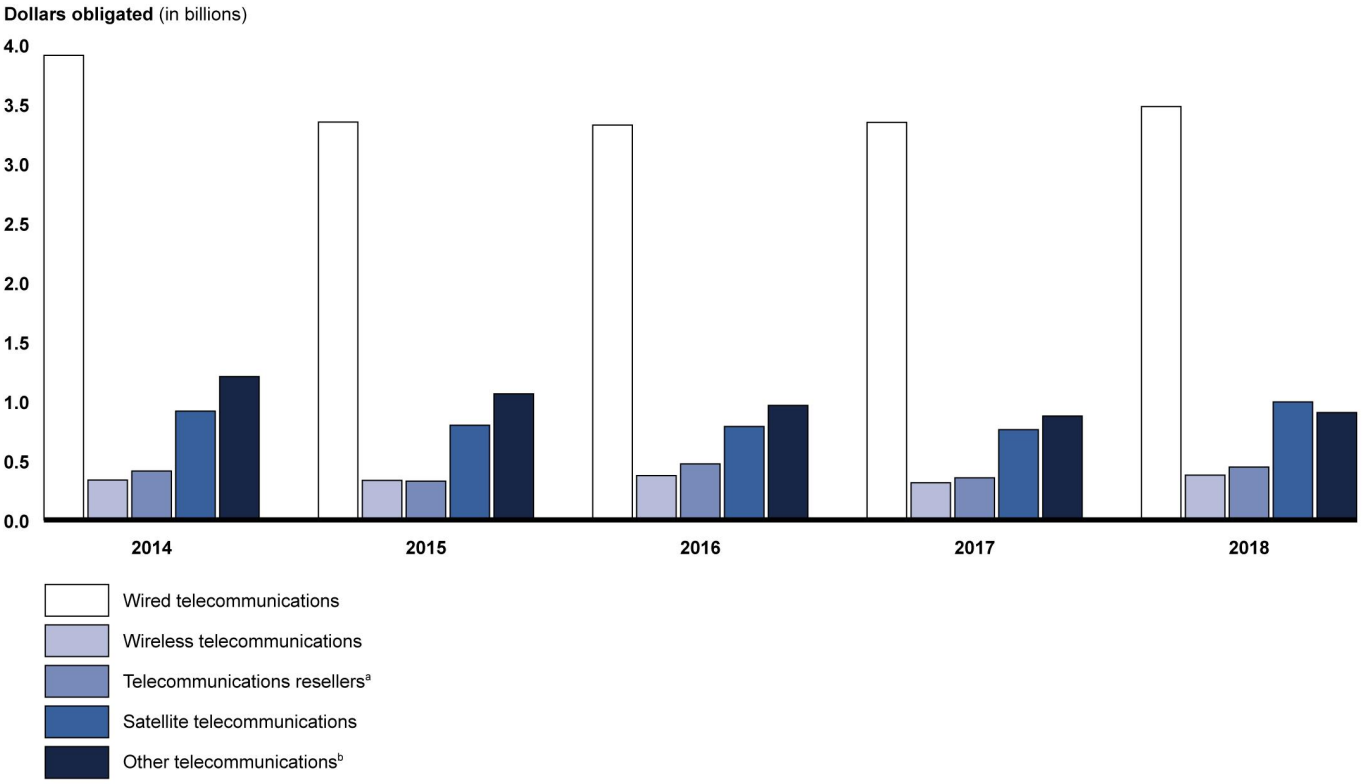
Civilian agencies	Department of Defense
10085	20287

Department of Homeland Security	Department of Veterans Affairs	Department of Transportation	National Aeronautics and Space Administration	All other agencies
614	1643	1821	2689	3318

Note: Obligations adjusted for inflation to fiscal year 2018 real dollars.

Agencies procured telecommunications products and services from an average of 1,500 vendors each year across the five telecommunications industry categories. A little more than half of these contractors were classified as small businesses. Ten contractors accounted for 52 percent of total federal telecommunications obligations for fiscal year 2018, which is generally consistent with obligation levels in the preceding 4 fiscal years. Appendix III provides additional information on the top federal telecommunications contractors based on dollars obligated. For the 5-year period we reviewed, our analysis shows that agencies reported the majority of dollars obligated were for purchases for wired telecommunications, as illustrated in figure 2.

Figure 2: Federal Obligations for Telecommunications Contracts by Industry Category—Fiscal Years 2014 through 2018 (in billions)



Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-291

Data table for Figure 2: Federal Obligations for Telecommunications Contracts by Industry Category—Fiscal Years 2014 through 2018 (in billions)

Year	Wired telecommunications	Wireless telecommunications	Telecommunications resellers	Satellite telecommunications	Other telecommunications
2014	3.908	0.334	0.41	0.914	1.205
2015	3.346	0.332	0.325	0.796	1.059
2016	3.321	0.371	0.47	0.785	0.962
2017	3.344	0.311	0.353	0.758	0.873
2018	3.477	0.376	0.444	0.992	0.902

Note: Obligations adjusted for inflation to fiscal year 2018 real dollars.

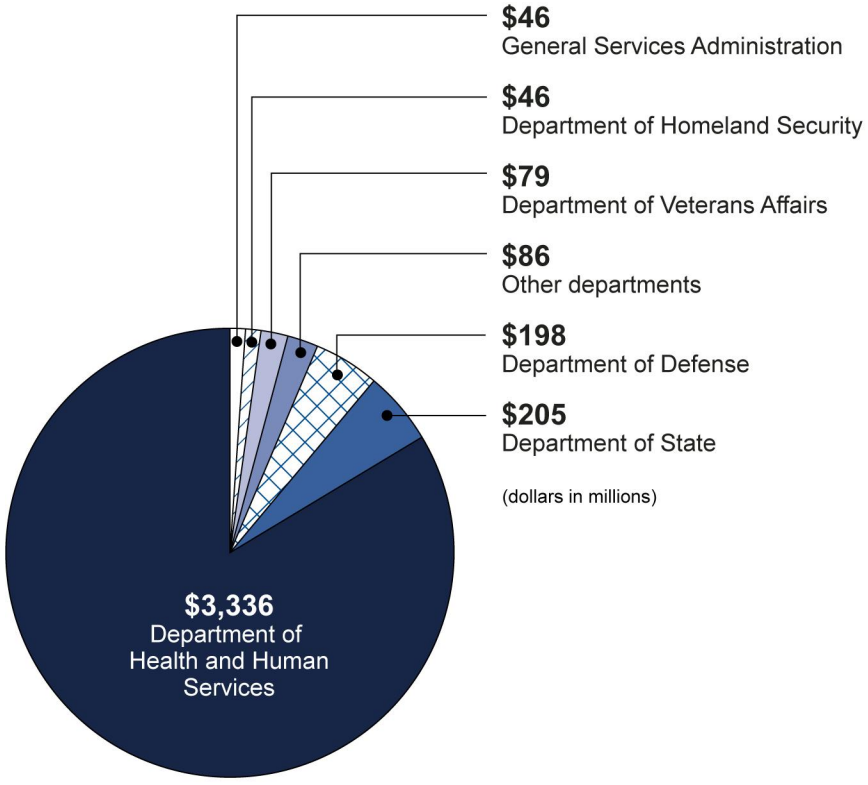
[a]Telecommunications Resellers involve service providers that purchase access and network capacity from owners and operators of telecommunications networks and resell wired and wireless services (except satellite) to businesses and consumers.

[b]Other Telecommunications includes specialized telecommunications services such as voice over internet protocol and internet service providers.

Federal Obligations for Call Centers Averaged $800 Million Annually

Agencies reported an average of $800 million annually for call center obligations for fiscal years 2014 through 2018, with HHS accounting for at least 80 percent of total spending. Call center spending accounted for 0.2 percent of all federal spending during the 5-year period we reviewed. Almost all—an average of 99.7 percent—of call center contract obligations were awarded for services each year, such as professional and administrative support, help desk, and technical assistance services. For example, the CMS contract in our sample was awarded to acquire management and staffing services for a call center that handles Medicare beneficiary inquiries for 1-800 MEDICARE and consumer inquiries for the Health Insurance Marketplace. Total government-wide call center obligations for fiscal years 2014 through 2018 are shown in figure 3.

Figure 3: Federal Obligations for Call Center Contracts—Fiscal Years 2014 through 2018 (in millions)



Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-291

Data table for Figure 3: Federal Obligations for Call Center Contracts—Fiscal Years 2014 through 2018 (in millions)

General Services Administration	Department of Homeland Security	Department of Veterans Affairs	Other departments	Department of Defense	Department of State	Department of Health and Human Services
46	46	79	86	198	205	3336

Note: Obligations adjusted for inflation to fiscal year 2018 real dollars.

An average of 133 different contractors had contracts with obligations for call centers during the 5 years we reviewed and about half were classified as small businesses. One contractor accounted for the majority of all obligations with obligation levels ranging from 80 to 84 percent for fiscal years 2014 through 2018. Appendix IV provides additional information on the top call center contractors based on dollars obligated.

Contract Reporting Systems Have Limited Data to Determine Extent of Subcontracting or Offshoring

Three federal reporting systems provide limited information about subcontracting and no information about offshoring because the systems were not designed to capture the extent of these activities.

- While FPDS-NG captures data on contracts entered into by federal agencies, it was not designed to include subcontracting data. The system has a field to indicate whether the prime contractor has developed a subcontracting plan, but does not have a field for contracting officials to specify details about what or how much of the products or services will be obtained through subcontracting. In addition, FPDS-NG was not designed to collect data on the extent to which prime contractors may offshore work performed on a federal contract. No field exists for contracting officials to indicate whether the contract involves business activities that include offshoring, regardless of what type of products or services are being acquired.
- eSRS collects information from prime contractors on their planned use of subcontractors. The FAR generally requires that contractors be required to submit an acceptable subcontracting plan when they are awarded a contract that exceeds $700,000 if subcontracting opportunities exist, and impose subcontracting plan requirements on subcontractors that receive subcontracts above certain thresholds.[13] However, as we previously reported in December 2014, eSRS was

[13]FAR §§ 19.702(a), 19.704(a).

not designed to provide a list of subcontractors associated with a particular contract.[14] As a result, the utility of eSRS in linking reported subcontractors to prime contracts is limited. Additionally, in general, prime contractors are not required to report in eSRS if a subcontractor's services are being performed outside of the United States or its territories. Contracting officials told us that they have limited insight into whether prime contractors subcontract with foreign entities.

- FSRS is used to collect award and entity information, such as subcontractor names and award amounts, from prime contractors on their subcontract awards.[15] Prime contractors obtain and report information provided by their subcontractors into FSRS. However, in June 2014, we reported that we could not verify the subcontract data in FSRS as agencies frequently do not maintain the records necessary to verify the information reported by the awardees.[16] In light of this, we recommended that the Director of OMB, in collaboration with Treasury's Fiscal Service, clarify guidance on agency maintenance of records to verify the accuracy of required data reported. OMB generally agreed with our recommendation. As of our latest report in April 2017, OMB had not yet taken action to implement our recommendation.[17]

Selected Telecommunications and Call Center Contracts Included Worker Protections

We identified several examples of worker protection requirements in our review of the five selected contracts. We categorized those requirements

[14]GAO, *Federal Subcontracting: Linking Small Business Subcontractors to Prime Contracts Is Not Feasible Using Current Systems,* GAO-15-116 (Washington, D.C.: Dec. 11, 2014).

[15]See FAR § 52.204-10. Generally, prime contractors are required to report on first-tier subcontracts with a value of $30,000 or more if the contractor or subcontractor had a gross income over $300,000 in the previous tax year, unless otherwise directed by the prime contractor's contracting officer. FAR § 52.204-10(d)(2), (g).

[16]GAO, *Data Transparency: Oversight Needed to Address Underreporting and Inconsistencies on Federal Award Website,* GAO-14-476 (Washington, D.C.: Jun. 30, 2014).

[17]GAO, *DATA Act: As Reporting Deadline Nears, Challenges Remain That Will Affect Data Quality,* GAO-17-496 (Washington, D.C.: Apr. 28, 2017).

into three areas: wages and hours, workplace safety and health, and protections against certain employer actions.[18]

Wages and Hours. These protections ensure the payment of minimum wage rates and authorize overtime pay, as appropriate, among other things. For example:

- The GSA Networx services contract and the DISA contract for DOD Information Network operations include requirements to ensure that covered contractor employees are to be paid wages at least at the federal minimum wage rate.
- The CMS call center operations contract and the DISA emergency telecommunications services contract authorize the contractor to provide overtime pay to certain employees if they work more than their standard hours.
- The CMS call center operations contract and the DISA contract for DOD Information Network operations identify classes of workers and state the minimum wage rate and fringe benefits that may be or are payable to them. For example, the CMS call center operations contract reflects Department of Labor rates for federal hires.
- The CMS call center operations contract also includes an HHS-specific requirement related to salary rate limitations that specifies that the contractor shall not use contract funds to pay the direct salary of an individual at a rate that exceeds the Federal Executive Schedule Level II in effect on the date the funding was obligated.

Workplace Safety and Health. These protections address dangers in the workplace that might affect the workplace safety or health of contractor employees. All five contracts reviewed contain requirements aimed at promoting or ensuring safe behaviors in the work environment, among other things. For example:

- All five contracts require the contractor to promote a drug-free workplace environment.
- DISA's DOD Information Network operations contract requires the contractor to establish specific safeguards to protect the health of its

[18]As previously discussed, some worker protection requirements and clauses may be required by applicable laws, executive orders, or regulations—such as the FAR. We did not attempt to determine whether or to what extent the contract requirements and clauses we identified were required, nor did we evaluate whether they complied with any applicable laws, executive orders, or regulations. We also did not assess whether any applicable requirements or clauses were omitted from the contracts.

workers who might work in a federal building complex that is known to be a toxic location, since asbestos and toxic metals have been located in the soil.

- DISA's DOD Information Network operations contract also includes requirements for the contractor to ensure its employees have health screenings and vaccinations as applicable to ensure they are physically and psychologically fit to perform the work at specific locations, such as those in military operation zones.[19]
- All five contracts encourage the contractor to establish policies to ban text messaging while driving.

Protections against Certain Employer Actions. These protections are intended to protect workers from potentially harmful actions undertaken by employers—such as discrimination in hiring practices, retaliation for reporting company violations, and participation in human trafficking. For example:

- All five selected contracts included equal employment opportunity provisions that prohibit discrimination in employment based on specific characteristics, such as being a veteran or a person with a disability.
- The CMS call center operations contract also included an agency requirement for the contractor to cooperate in any investigations into allegations of employment discrimination.
- The CMS call center operations contract, the two DISA contracts, and the GSA Networx services contract incorporate clauses requiring their contractors to provide whistleblower protections that protect an employee from reprisal when they inform authorities of fraud, waste, abuse, or violations of contract law by the contractor.
- All five selected contracts include the clause that prohibits the contractor and its employees from any involvement in trafficking in persons.

In addition, DISA's DOD Information Network operations contract requires the contractor to offer employment to specific groups of people under certain circumstances. Specifically, the contractor is to employ local residents when work is to be performed in Hawaii. In addition, the

[19]We previously reported on opportunities for DOD to consider workplace safety and health as part of the pre-award phase. See GAO-19-235, Defense Contracting: Enhanced Information Needed on Contractor Workplace Safety, GAO-19-235 (Washington, D.C.: Feb. 21, 2019).

contractor is to offer employment to former federal employees first when work is to be performed at a military base that is closing.

Observations on Offshoring. We did not identify offshoring of the products or services being acquired in the five contracts we reviewed. Generally, if a prime contractor awards a subcontract, the contractor will flow down applicable requirements to the first-tier subcontractor and other subcontractors at lower tiers, unless otherwise specified. We identified only one worker protection clause that would flow down to the subcontractor in the event of offshoring—the requirement to prohibit involvement in trafficking in persons.[20]

Selected Telecommunications and Call Center Contracts Included Data Protection and System Security Requirements

The five selected contracts we reviewed include examples of various safeguards—such as limiting access to data systems and data, system management controls, contingency planning and restoration of services, and restrictions on the use of equipment—to protect data systems and personally identifiable information from unauthorized access and use. These safeguards are all part of NIST standards.

Access Controls. Physical access controls and authentication requirements limit, block, or detect inappropriate access to data, equipment, and facilities. These controls help to reduce the chances of data systems being used for malicious purposes and protect the systems from unauthorized modification, loss, or disclosure. For example:

- The GSA Alaska telecommunications services contract states that the physical access point to the telecommunications closet must be limited to personnel with appropriate identification. In addition, this contract requires the contractor to follow agency security procedures, such as having personnel sign into and out of physical locations and abide by escort procedures. Further, the contractor is required to ensure that all employees have identification that meets specific federal guidelines.[21] The contract also states that subcontractors are

[20]FAR § 52.222-50.

[21]Homeland Security Presidential Directive 12.

subject to personal identity verification, and are to comply with applicable standards.

- The CMS call center operations contract requires a multifactor authentication—which requires two pieces of identifying information to log in—for call center employees to remotely access sensitive government-owned data on computer systems. In addition, the contract requires all employees who have access to data systems and personally identifying information to pass a background check. Further, the contract reduces the ability of employees to copy or transmit a customer's personal information by requiring the contractor to ensure a secure floor that prohibits cell phone usage or note taking on paper. According to the CMS officials, the call center employees are required to leave all personal items, such as cell phones, in lockers, and the scripts they reference during calls are laminated. In addition, the supervisor on duty checks desks to ensure personal items are not present. According to CMS officials these steps help protect callers' sensitive data, such as their medical information.
- The DISA contract for the day-to-day operations for the DOD Information Network states that the contractor must have a plan in place that includes physical security and protection of the system infrastructure.

Security Management Controls. These controls establish a framework and continuous cycle for assessing data systems for security weaknesses, implementing security procedures, and monitoring the procedures to ensure adequate protection of sensitive or critical resources. A variety of security management control requirements were included in the selected contracts. For example:

- The GSA Networx contract, which provides a variety of network services to the federal government, states that a contractor must comply with FISMA and NIST standards. According to a GSA contracting official, contractors have to show that their information systems are adequately protected against cybersecurity threats before performing any services on a task order. Government officials will certify the system once they agree the system is adequately protected. This certification occurs after a contract has been awarded, but before work begins. According to a government official, these systems are periodically reviewed and monitored to ensure the systems stay protected.
- The DISA contract for the day-to-day operations for the DOD Information Network requires the contractor to assist the government to ensure that all networks and information systems are accredited in

accordance with DOD's Certification and Accreditation Program, which requires certain cybersecurity protections are in place.[22] This contract also requires that the contractor or any subcontractor implement safeguarding requirements to protect covered contractor information systems, such as limiting access to authorized users, verifying and controlling connections to and use of external information systems, authenticating the identities of users before allowing access to information systems, and limiting physical access to systems and equipment. The contract also requires that the government have access to the contractor's databases in order to carry out vulnerability testing and audits to safeguard against threats to the integrity, availability, and confidentiality of data or to the functions of information technology systems operated on behalf DISA or DOD.

- The DISA contract that provides priority telecommunications for executive branch staff in case of an emergency requires that the contractor must identify and analyze threats to the system on a 24-hours-a-day, 7-days-a-week basis, and offer solutions to fix identified weaknesses. DISA contracting officials stated that threats to the data systems are mitigated before contract award because the government is trying to prevent attacks and not just react to threats. Additionally, the contractor has to provide periodic maintenance of the installed networking infrastructure to certify proper functioning of the equipment.
- The CMS call center operations contract requires that the contractor perform annual vulnerability assessments, which includes tests that attempt to break into the contractor's systems, the contractor's system programs, and the contractor's facility in accordance with agency specific standards.

Contingency Planning and Restoration of Services. Planning for how to provide continued or restored services when system interruptions or problems occur is necessary because even a minor interruption can result in lost or incorrectly processed data. NIST has published guidance on the contingency planning process. Several of the contracts we reviewed required the contractor to have contingency plans in place in case of any disruption of services and specified how quickly services are to be restored if disrupted. For example:

[22]This is the predecessor to the current Risk Management Framework which is implemented by NIST Special Publication 800-37.

- The GSA Alaska telecommunication services contract requires that the contractor restore service within 4 hours of any system disruption. According to the contracting officer, not restoring the system within 4 hours, unless a longer time is agreed to by the contracting officer, would be considered a performance issue and would count against the contractor during its performance review. This includes restoring any equipment, transmission station, circuit, or area that the government deems critical.
- The DISA DOD Information Network services contract requires the contractor to ensure that there is no disruption of services on the government networks during routine maintenance of systems, during system upgrades, or while the system has vulnerability testing, among others.
- The CMS call center contract requires that the contractor develop a business continuity plan that identifies and prioritizes critical systems and recovery strategies, as well as a consolidated business continuity plan. The consolidated plan needs to account for the interdependence between applications and operations and address procedures for sustaining essential business operations while recovering from significant disruptions, including contingencies for a catastrophic loss of equipment required to deliver its services.

Restricting the Purchase and Use of Equipment from Identified Countries or Manufacturers. As we reported in July 2018, reliance on a global supply chain introduces multiple risks to federal information systems, including the installation of intentionally harmful hardware or software, reliance on malicious service providers, or installation of hardware or software containing unintentional vulnerabilities such as defective code.[23] NIST published several guidelines to help federal agencies select controls and activities relevant to managing supply chain risk. Our selected contracts included several requirements related to mitigating supply chain risks. For example:

- Under the CMS call center contract, certain government-provided systems are supplied to the contractor to meet the requirements of the contract. By providing the systems, the government controls what type of equipment is being used and reduces the risk that any compromised equipment is introduced in its network.

[23]GAO, *Information Security: Supply Chain Risks Affecting Federal Agencies,* GAO-18-667T (Washington, D.C.: July 12, 2018).

- The DISA contract for the day-to-day operations for the DOD Information Network requires the contractor to use the DISA-approved products list for purchasing equipment for use in repair and similar functional activities. According to a DISA contracting official, this list is continuously updated to make sure that vulnerable products are not being purchased. In addition, this contract specifically prohibits contractors from using certain Chinese-manufactured equipment or services utilizing that equipment. This requirement extends to any equipment or services provided by subcontractors. According to the contracting officer, the contractor requests confirmation from its subcontractors that they are not using prohibited equipment. The contractor then notifies the contracting officer that prohibited equipment is not used on the contract.
- All five contracts include a restriction on purchases of most goods and services from specific countries, such as Cuba and Iran. The contract requires this restriction to flow down to any subcontractor.

Privacy for Personally Identifiable Information. The CMS call center contract involves handling personally identifiable information, such as private medical information. As part of the contract terms, contractor personnel are required to follow specific health care privacy requirements to protect customers' personal health information. In addition, the contract includes agency-specific requirements to protect personally identifiable information and personal health information.

Observations on Offshoring. The five contracts we reviewed included requirements that limited the contractors' opportunity to use offshoring for labor.

- The DISA contract for the day-to-day operations for the DOD Information Network stipulates that only U.S. citizens can be hired to perform services. According to the contracting officer, the DISA contract that provides priority telecommunications for executive branch staff in case of an emergency also requires that the contractor hire only U.S. citizens. In addition, the GSA Networx services contract states that work on some orders may require U.S. citizenship.
- The GSA Alaska telecommunications services contract states that contractor personnel may be required to successfully pass a background check to work in controlled areas under the contract.
- The CMS call center contract requires that the call center be located in a facility within the continental United States. According to officials, this requirement helps protect data and privacy information. CMS officials stated that generally for call center contracts the contractor

must obtain prior approval from the agency's contracting officer in writing if it wants to subcontract or move operations to a location outside of the United States or its territories. According to CMS contracting officials, they have never received a request to offshore call center operations.

Agency Comments

We provided a draft of this product to DOD, DOL, GSA, and HHS for review and comment. DOL, GSA, and HHS provided technical comments, which we incorporated as appropriate. DOD informed us that it had no comments on the draft report.

We are sending copies of this report to the appropriate congressional committees and the Secretaries of Defense, Labor, and Health and Human Services and the Administrator of General Services. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact William T. Woods at (202) 512-4841 or woodsw@gao.gov or Cindy S. Brown Barnes art (202) 512-7215 or brownbarnesc@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.

William T. Woods
Director, Contracting and National Security Acquisitions

Cindy S. Barnes
Cindy S. Brown Barnes
Director, Education, Workforce, and Income Security

List of Requesters

The Honorable Rosa DeLauro
Chairwoman
Subcommittee on Labor, Health and Human Services, Education and Related Agencies
Committee on Appropriations
House of Representatives

The Honorable Tim Ryan
Chairman
Subcommittee on the Legislative Branch
Committee on Appropriations
House of Representatives

The Honorable Mark DeSaulnier
House of Representatives

The Honorable Jared Huffman
House of Representatives

The Honorable Marcy Kaptur
House of Representatives

The Honorable Barbara Lee
House of Representatives

The Honorable James McGovern
House of Representatives

The Honorable Eleanor Holmes Norton
House of Representatives

The Honorable Bill Pascrell
House of Representatives

The Honorable Mark Pocan
House of Representatives

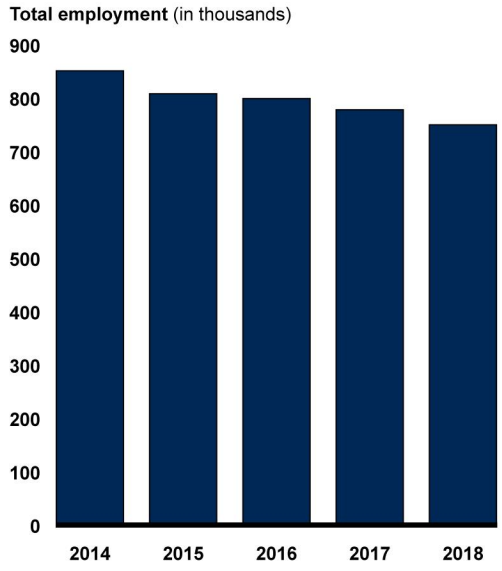
Appendix I: U.S. Employment Trends in the Telecommunications and Call Center Industries and Observations on Offshoring

Employment Decline in Telecommunications Industry Potentially Influenced by Technological Advances

Our review of data from the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages shows that employment in the telecommunications sector overall declined 12 percent from calendar years 2014 through 2018, as illustrated in figure 4. In contrast, during the same 5-year period, total employment across all industries in the United States grew by 7 percent. According to BLS data, the decline in telecommunications employment has been underway since at least 2009. BLS projects this decline will continue through at least 2028.[1]

[1]BLS's employment projections program, which draws from several BLS data collections as well as interviews with industry specialists and reviews of relevant articles, develops information about the labor market for the nation as a whole for 10 years in the future.

Figure 4: Total Employment in U.S. Telecommunications Industry—Calendar Years 2014 through 2018



Source: GAO analysis of U.S. Department of Labor and Bureau of Labor Statistics data. | GAO-20-291

Data table for Figure 4: Total Employment in U.S. Telecommunications Industry—Calendar Years 2014 through 2018

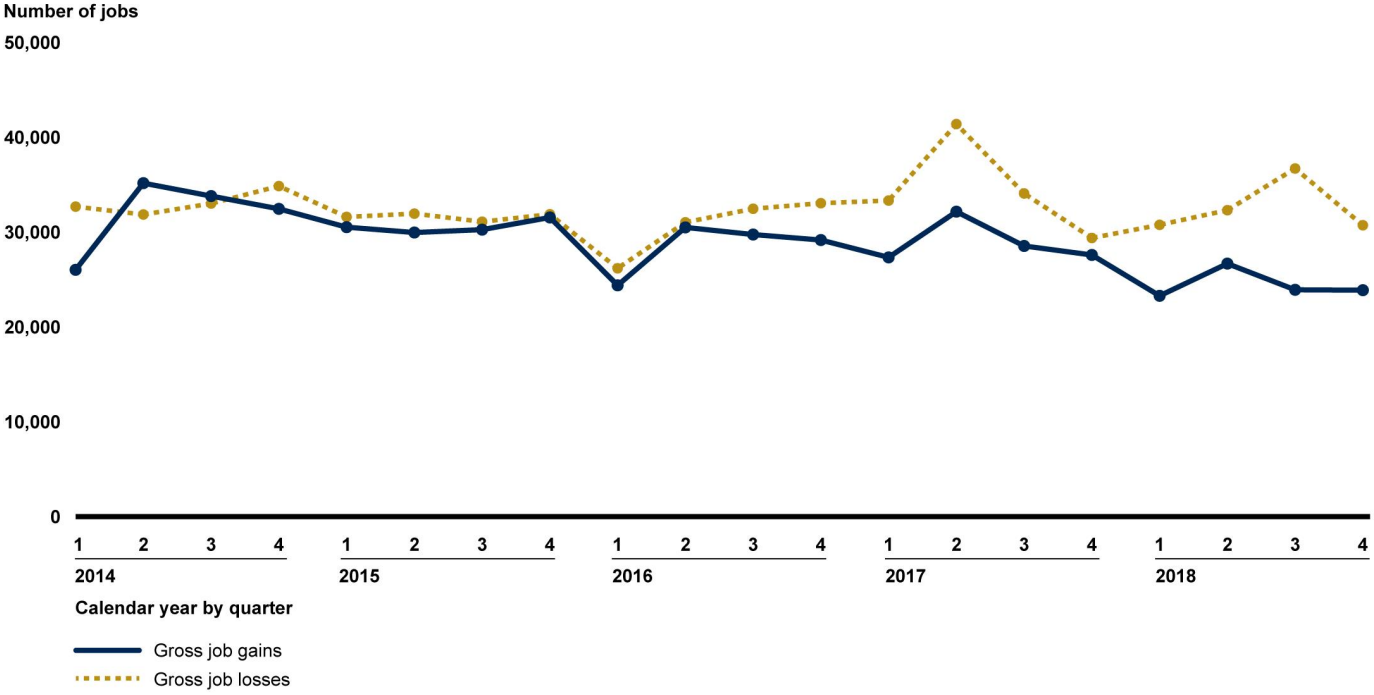
Year	Total employment (in thousands)
2014	851
2015	808
2016	799
2017	778
2018	750

Department of Labor (DOL) data series on trends in employment are not designed to identify causes of employment changes. However, BLS officials and other researchers cited the role of technology as a possible cause of the decline in telecommunications employment. For example, BLS officials said the move toward newer technologies, such as satellite transmissions, has had an adverse impact on employment. Additionally, representatives of a major telecommunications contractor told us that technological advances either resulted in fewer employees being needed to perform specific functions or replaced previous manual operations with automated processes. In addition, the representatives stated that uses of artificial intelligence, such as smart networks and machine learning, facilitate tasks that in the past relied extensively on human labor. Finally,

the effect of technology on employment in telecommunications has also been noted by an industry analyst.[2]

Employment in the telecommunications industry has been marked by job gains as well as losses in the last 5 years, although generally, losses have exceeded gains. BLS's Business Employment Dynamics data capture the gross number of job gains from establishment openings and expansions and job losses from establishment closings and contractions across the U.S. economy. In the last 5 years, new jobs in telecommunications have been generated; however, job losses have exceeded job gains in almost every quarter since 2014, as shown in figure 5.

Figure 5: Gross Job Gains and Gross Job Losses in U.S. Telecommunications Industry—Calendar Years 2014 through 2018



Source: GAO analysis of U.S. Department of Labor, Bureau of Labor Statistics data. | GAO-20-291

[2]Matt Walker, "Industry Voices—Walker: The Hidden Truth about 5G is Layoffs," *Fierce Telecom*, March 11, 2019.

Data table for Figure 5: Gross Job Gains and Gross Job Losses in U.S. Telecommunications Industry—Calendar Years 2014 through 2018

	Quarter	Gross Job Gains	Gross Job Losses
2014	1	26025	32686
	2	35163	31855
	3	33802	33014
	4	32453	34852
2015	1	30522	31601
	2	29957	31948
	3	30260	31095
	4	31544	31882
2016	1	24389	26183
	2	30497	31032
	3	29744	32464
	4	29165	33049
2017	1	27336	33328
	2	32156	41393
	3	28541	34075
	4	27591	29380
2018	1	23285	30767
	2	26680	32310
	3	23917	36708
	4	23877	30724

The effect of offshoring on employment in telecommunications, if any, is unknown due to the absence of data. Although U.S. employment in telecommunications has declined, the role of offshoring as a potential contributor to the decline is unclear, due to a lack of data and because offshoring is one of many factors that can affect employment levels. According to BLS officials, no public or private data exist that estimate the extent of offshoring in this or any industry sector.[3] BLS officials told us that little interest has been expressed in collecting data on offshoring. They noted that if BLS were to develop a new survey aimed at measuring the extent of offshoring, technical issues—including determining what

[3]BLS officials noted that the Mass Layoff Statistics survey collected data on large-scale layoff events included a question to capture information from U.S. employers on whether layoffs were attributed to offshoring their business functions. BLS eliminated the Mass Layoffs Statistics program in 2013, in order to implement budget cuts required by the Balanced Budget and Emergency Deficit Control Act of 1985, as amended. See 2 U.S.C. § 901.

data should be collected that would give such insight—would need to be resolved. Furthermore, the BLS officials stated that they did not identify offshoring as a factor contributing to recent employment declines in telecommunications based on their industry research, which included interviews with industry specialists. According to BLS researchers, offshoring is one of many factors that can affect job gains and losses for occupations within an industry. In a 2008 article estimating the susceptibility of different occupations to offshoring, BLS researchers cautioned that "no attempt should be made to attribute growth rates in an occupation, or differences between occupations, to offshoring."[4]

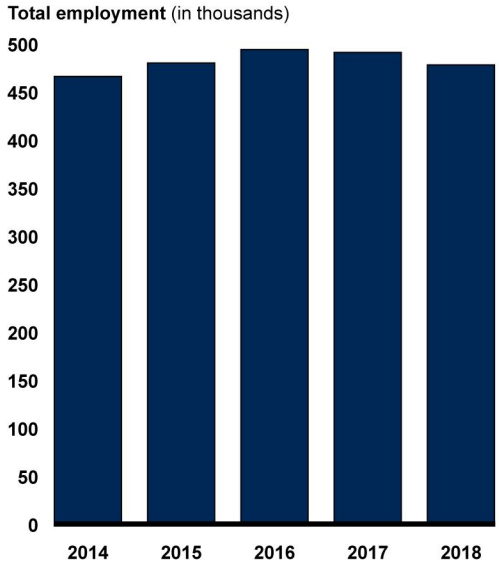
Call Center Employment Levels Appear Relatively Stable

Overall, employment in call centers has fluctuated recently, but appears relatively stable over the period of calendar years 2014 through 2018, though it remains higher than during the previous 5 years. As shown in figure 6, after rising for a few years, in 2018 employment returned to a level slightly below that reached in 2015. According to BLS officials, employment in the business support services industry, which includes call centers, is projected to increase modestly through 2028.[5] BLS officials said it is not clear why employment in call centers declined in 2018.

[4]Roger J. Moncarz, Michael G. Wolf and Benjamin Wright, "Service-providing occupations, offshoring, and the labor market," *Monthly Labor Review*, December 2008, pp. 71-86. Others have estimated the susceptibility of different occupations to offshoring. See, for example, Alan S. Blinder, "How Many U.S. Jobs Might be Offshorable?", CEPS Working Paper No. 142, March 2007; Alan S. Blinder and Alan B. Krueger, "Alternative Measures of Offshorability: A Survey Approach," NBER Working Paper 15287, August 2009; David Hummels, Jakob R. Munch, and Chong Xiang, "Offshoring and Labor Markets," NBER Working Paper 22041, February 2016.

[5]According to BLS officials, this estimated projected growth includes other business services—such as document preparation services, collection agencies, and credit bureaus—along with call centers. BLS officials explained that projections are not made at the more specific industry code level for call centers that is used in this appendix.

Figure 6: Total Employment in Call Centers—Calendar Years 2014 through 2018



Source: GAO analysis of U.S. Department of Labor and Bureau of Labor Statistics data. | GAO-20-291

Data table for Figure 6: Total Employment in Call Centers—Calendar Years 2014 through 2018

Year	Total employment (in thousands)
2014	466
2015	480
2016	494
2017	491
2018	478

Note: The data reflect total employment in telemarketing and other contact centers.

Although GAO and others have identified call centers as potentially subject to offshoring, the full extent of offshoring occurring within the U.S. call center industry is unknown. [6] Some anecdotal evidence exists about the purported growth of offshore call centers that serve U.S. companies. However, we found no analyses in our literature review regarding the effects of offshoring on call center jobs overall. Just as with telecommunications, many other factors potentially affect call center employment, such as technological advances. For example, interactive voice response technology has been used to provide responses to simple

[6]See GAO, *International Trade: Current Government Data Provide Limited Insight into Offshoring of Services,* GAO-04-932 (Washington, D.C.: Sept. 22, 2004); and Blinder and Krueger 2009.

inquiries, which to some extent may reduce or eliminate some call center work.

Research Has Identified Various Factors That Potentially Affect Offshoring across Industries

Although we did not find studies that address the effects of offshoring on telecommunications and call centers specifically, the literature we reviewed discussed some characteristics of workers, services, and companies that potentially influence offshoring decisions, in general, across industries. As such, offshoring decisions may involve, but are not limited to, considerations of the presumed interchangeability of U.S.-based and overseas workers, workers' languages and cultures, technical requirements for the services being offshored, and companies' ability to manage offshoring.

Appendix II: Objectives, Scope, and Methodology

This report addresses: (1) total federal obligations for telecommunications and call center contracts; (2) worker protections identified in selected telecommunications and call center contracts; and (3) data security and privacy protection requirements identified in these contracts. This report also includes observations on the extent and effect of offshoring. For the purposes of this report we define “telecommunications” to encompass the preparation, transmission, communication, or related processing of information that can be in the form of voice, video, or data; “call centers” to include centers handling inquiries via multiple channels such as telephone, Web page, e-mail, and postal mail; and “offshoring” to mean the obtaining of goods or services from non-U.S.-based employer subcontractors located outside of the United States and its territories that use non-U.S. citizen employees. In addition, we gathered information on employment trends for the telecommunications and call center industries for calendar years 2014 through 2018.

To determine the level of federal obligations for telecommunications and call centers, we used data from the Federal Procurement Data System-Next Generation (FPDS-NG) for fiscal years 2014-2018. We identified obligations for telecommunications and call center contracts by using the associated North American Industry Classification System (NAICS) codes for these industry sectors. As defined in the NAICS manual, telecommunications contracts are identified as having a NAICS code starting with the prefix 517, and call center contracts are identified as having a NAICS code starting with the prefix 56142.

To identify examples of worker protections and data security and privacy protections in federal contracts, we selected a nongeneralizable sample of five contracts from three agencies with some of the highest obligations for telecommunications and call center contracts during fiscal years 2014 through 2018. Specifically, we selected (1) the Department of Defense (DOD) because it obligated the highest amount for telecommunications contracts; (2) the Department of Health and Human Services (HHS) because it obligated the highest amount for call center contracts; and (3) the General Services Administration (GSA), which is among the top ten agencies with the highest amounts for telecommunications contracts,

because it provides a government-wide contract available for agencies to place orders for telecommunications and call centers. We then identified the component within each agency that obligated the most for these services or that provides a large government-wide contract vehicle. The components were DOD's Defense Information Systems Agency, GSA's Federal Acquisition Service, and HHS's Center for Medicare and Medicaid Services (CMS). We selected contracts that included a large call center and a large government-wide telecommunications contract vehicle. We also selected a variety of telecommunications contracts that were among the highest obligations during fiscal years 2014 through 2018, and represented different types of telecommunications services procured during the period, such as wired and wireless services. Table 2 provides a synopsis of the 5 contracts included in our review.

Table 2: Contracts Selected for Review

Contract	Agency / Component	Category	Services/Products to be provided
Department of Defense (DOD) Information Network	DOD / Defense Information Systems Agency	Wired Telecommunications	Day-to-day support for the DOD Information Network—which provides an end-to-end set of information capabilities that include voice, data, and video transmissions—network solutions, such as local area networks, and other services
Emergency Preparedness Telecommunications Services	DOD / Defense Information Systems Agency	Wireless Telecommunications	Priority wireless communications through telecommunications carriers for the President of the United States and the Executive Committee in the event of massive network congestion, such as during a natural disaster or national emergency
Call Center	Department of Health and Human Services / Centers for Medicare and Medicaid Services	Telephone Call Centers	Management and staffing of call center to respond to Medicare beneficiary inquiries for 1-800 MEDICARE and consumer inquiries for the Health Insurance Marketplace
Networx	General Services Administration (GSA) / Federal Acquisition Service	Wired Telecommunications	Voice and data services, wireless services, and management and application services, including video and audio conferencing, as well as mobile and fixed satellite services
Telecommunications Services in Alaska	GSA / Federal Acquisition Service	Wired Telecommunications	Video and data transmission, and analog and digital phone services in various locations in Alaska

Source: GAO | GAO-20-291

We reviewed documentation from the five selected contracts, along with the relevant federal acquisition regulations for worker protections, data security and privacy protections, subcontracting, and offshoring. We interviewed cognizant contracting officials to clarify our understanding of the contract requirements we identified related to worker protection and data security and privacy protections. We also met with representatives from three contractors to obtain their insights into contracting with the

government, relevant contract requirements, and industry trends. The purpose of our contract review was to illustrate the different worker protections and data security and privacy protections that may be included in these types of contracts.[1]

To address the employment trends in telecommunications and call centers and how they were affected by offshoring, we reviewed employment data from the Quarterly Census of Employment and Wages published by the Bureau of Labor Statistics (BLS) within the Department of Labor. The Quarterly Census of Employment and Wages program publishes a quarterly count of employment and wages reported by employers that covers more than 95 percent of U.S. jobs and is supported by quarterly reports from all private sector employers. We also reviewed data from BLS' employment projections program, which draws from several BLS data collections as well as interviews with industry specialists and reviews of relevant articles to develop information about the labor market for the nation as a whole for 10 years in the future. In addition, we reviewed BLS' Business Employment Dynamics data, which consist of a quarterly series of statistics on gross job gains and gross job losses for the entire economy. Gross job gains and gross job losses reveal some aspects of business dynamics, including establishment openings and expansions, and establishment closings and contractions. The quarterly data series include the number and percent of gross jobs gained by opening and expanding establishments, and the number and percent of gross jobs lost by closing and contracting establishments. Furthermore, we reviewed DOL data on layoffs collected by the Trade Adjustment Assistance program that are considered to be caused by trade through shifts in production or services to a foreign country. While the data include layoffs in telecommunications, DOL officials did not believe the data would be useful for this report. Specifically, the data do not necessarily reflect all layoffs in a given sector, but only those associated with requests for investigations by DOL as to the role of trade in the layoff, and initial estimates of affected workers—those facing layoffs and those threatened by layoffs—are not representative.

[1]Some worker protection and data security and privacy protection requirements may be required by law, executive order or regulation. We did not attempt to determine whether or to what extent the contract requirements and clauses we identified were required, nor did we evaluate whether they complied with any applicable laws, executive orders, or regulations. We also did not assess whether any applicable requirements were omitted from the contracts.

To review the potential effect of offshoring on employment trends, we performed a literature review of selected economic research and other relevant articles, and discussed the results with DOL officials. To identify relevant material—including reports, dissertations, working papers, and journal articles—we searched databases including the National Bureau of Economic Research, Bureau of Economic Analysis, Business Source Corporate Plus, EBSCO, EconLit, ProQuest (including dissertations and theses), Social SciSearch, Public Affairs Information Service via DIALOG, Lexis Trade files, SSRN, WorldCat, National Academies Press, and National Technical Information Service. We used search terms that included variations on "telecommunications" and "call centers," as well as "offshoring," "offshore outsourcing," "labor market impact," "worker displacement," "layoffs," "employment trends," and "hiring trends." From our initial literature search we selected 13 documents for more in-depth review. We excluded references that addressed the effects of offshoring on non-U.S. economies and labor forces, or were otherwise beyond our scope, such as working conditions, work flow, collective bargaining, customer service, service quality, or training in call centers. Based on this research, we identified reasonable observations about employment trends and offshoring in telecommunications and call centers. As noted in this report, research on the questions addressed in this report reaches different conclusions. The relevant research that we reviewed provided some insights on how offshoring could potentially affect the telecommunications and call center industries, but provided no information regarding the extent of the impact. Because of this and other data limitations, we were unable to determine the extent to which offshoring may be occurring and what effect offshoring is having on the telecommunications and call center industries.

We conducted this performance audit from March 2019 to April 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix III: Top Federal Telecommunications Contractors during Fiscal Years 2014 through 2018

Agencies reported obligations for approximately 1,500 different contractors that provided telecommunications products and services each year during fiscal years 2014 through 2018. Ten of these contractors accounted for 52 percent of obligations for telecommunications contracts in fiscal year 2018. The top contractor received 10 percent of the total telecommunications obligations in fiscal year 2018, and was also one of the top three contractors in the preceding fiscal years. Figure 7 shows the top 10 telecommunications contractors' based on total obligations during fiscal years 2014 through 2018.

Figure 7: Top Federal Telecommunications Contractors by Obligations—Fiscal Years 2014 through 2018 (in millions)

Top federal telecommunications contractors

	Total obligations (dollars in millions)		Number of agencies served and top agencies served by obligations
1	AT&T Inc.	$2,888	43 • Department of Defense • Department of Veterans Affairs • Department of Transportation • Department of State
2	Harris Corporation	$2,625	8 • Department of Defense • Department of Transportation • National Aeronautics and Space Administration
3	Verizon Communications Inc.	$2,366	51 • Department of Defense • Department of Homeland Security • Department of Veterans Affairs • Department of Health and Human Services
4	Lockheed Martin	$1,926	2 • Department of Defense • Department of Health and Human Services
5	General Dynamics Corporation	$1,740	11 • Department of Defense • National Aeronautics and Space Administration • Department of Homeland Security
6	Centurytel Inc.	$1,223	40 • Department of Defense • Department of Veterans Affairs • General Services Administration
7	Raytheon Company	$1,211	4 • Department of Defense • National Aeronautics and Space Administration
8	Leidos Holdings Inc.	$644	7 • Department of Defense
9	International Business Machines Corporation	$589	4 • Department of Defense
10	Finmeccanica SPA	$486	4 • Department of Defense

Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-291

Data table for Figure 7: Top Federal Telecommunications Contractors by Obligations—Fiscal Years 2014 through 2018 (in millions)

Top federal telecommunications contractors	Total obligations (dollars in millions)	Number of agencies served	Top agencies served by obligations
AT&T Inc.	2,888	43	• Department of Defense • Department of Veterans Affairs • Department of Transportation • Department of State
Harris Corporation	2,625	8	• Department of Defense • Department of Transportation • National Aeronautics and Space Administration
Verizon Communications Inc.	2,366	51	• Department of Defense • Department of Homeland Security • Department of Veterans Affairs • Department of Health and Human Services
Lockheed Martin	1,926	3	• Department of Defense • Department of Health and Human Services
General Dynamics Corporation	1,740	11	• Department of Defense • National Aeronautics and • pace Administration • Department of Homeland Security
Centurytel Inc.	1,223	40	• Department of Defense • Department of Veterans Affairs • General Services Administration
Raytheon Company	1,211	4	• Department of Defense • National Aeronautics and space Administration
Leidos Holdings Inc.	644	7	• Department of Defense
International Business Machines Corporation	589	4	• Department of Defense
Finmeccanica SPA	486	4	• Department of Defense

Note: Obligations adjusted for inflation to fiscal year 2018 real dollars.

Appendix IV: Top Federal Call Center Contractors during Fiscal Years 2014 through 2018

Agencies reported obligations for approximately 133 different call center contractors each year during fiscal years 2014 through 2018. Ten contractors accounted for 94 percent of obligations for call centers in fiscal year 2018; with one contractor accounting for 83 percent of total obligations for the 5-year period we reviewed. Figure 8 shows the top 10 telecommunications contractors' based on total obligations during fiscal years 2014 through 2018. Although the amount of obligations each year changed, these contractors were generally among the top 10 across all 5 fiscal years.

Figure 8: Top Federal Call Center Contractors by Obligations—Fiscal Years 2014 through 2018 (in millions)

Top federal call center contractors

	Total obligations (dollars in millions)		Number of agencies served and top agencies served by obligations
1	General Dynamics Corporation	$3,312	1 • Department of Health and Human Services
2	Peckham Vocational Industries Inc.	$202	4 • Department of State
3	Inspiretec Inc.	$141	2 • Department of Defense • General Services Administration
4	Magellan Health Services Inc.	$36	1 • Department of Defense
5	K4 Solutions Inc.	$31	2 • Department of Homeland Security
6	National Telecommuting Institute Inc.	$28	1 • Department of Treasury
7	Bobby Dodd Institute Inc.	$19	2 • Department of Veteran Affairs • Department of Defense
8	National Sourcing Inc.	$18	1 • Department of Defense
9	National Industries for the Blind, Inc.	$13	1 • Department of Defense
10	Inquist LLC	$13	4 • Department of Defense • Department of Housing and Urban Development • Department of Transportation

Source: GAO analysis of Federal Procurement Data System-Next Generation data. | GAO-20-291

Data table for Figure 8: Top Federal Call Center Contractors by Obligations—Fiscal Years 2014 through 2018 (in millions)

Top federal call center contractors	Total obligations (dollars in millions)	Number of agencies served	Top agencies served by obligations
General Dynamics Corporation	3,312	1	• Department of Health and Human Services
Peckham Vocational Industries Inc.	202	4	• Department of State
Inspiretec Inc.	141	2	• Department of Defense • General Services Administration
Magellan Health Services Inc.	36	1	• Department of Defense
K4 Solutions Inc.	31	2	• Department of Homeland Security
National Telecommuting Institute Inc.	28	1	• Department of Treasury
Bobby Dodd Institute Inc.	19	2	• Department of Veteran Affairs • Department of Defense
National Sourcing Inc.	18	1	• Department of Defense
National Industries for the Blind, Inc.	13	1	• Department of Defense
Inquist LLC	13	4	• Department of Defense • Department of Housing and Urban Development • Department of Transportation

Note: Obligations adjusted for inflation to fiscal year 2018 real dollars.

Appendix V: GAO Contacts and Staff Acknowledgments

GAO Contacts

William T. Woods, (202) 512-4841 or WoodsW@gao.gov

Cindy S. Brown Barnes, (202) 512-7215 or BrownBarnesC@gao.gov

Staff Acknowledgments

In addition to the contacts named above, Candice Wright (Assistant Director), Blake Ainsworth (Assistant Director), R. Eli DeVan (Analyst-in-Charge), Pedro Almoguerra, Sarah Cornetto, Lorraine Ettaro, Suellen Foth, Stephanie Gustafson, Victoria Klepacz, Chris Morehouse, Patricia Powell, Miranda Riemer, Roxanna Sun, Alyssa Weir, and April Yeaney made key contributions to this report.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. You can also subscribe to GAO's email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, https://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on Facebook, Flickr, Twitter, and YouTube.
Subscribe to our RSS Feeds or Email Updates. Listen to our Podcasts.
Visit GAO on the web at https://www.gao.gov.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: https://www.gao.gov/fraudnet/fraudnet.htm

Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

Orice Williams Brown, Managing Director, WilliamsO@gao.gov, (202) 512-4400,
U.S. Government Accountability Office, 441 G Street NW, Room 7125,
Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

Strategic Planning and External Liaison

James-Christian Blockwood, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814,
Washington, DC 20548