United States Government Accountability Office

Report to the Ranking Member, Committee on Science, Space, and Technology, House of Representatives

January 2016

FEDERAL ACQUISITIONS

Use of 'Other Transaction' Agreements Limited and Mostly for Research and Development Activities

GAO-16-209

January 2016

FEDERAL ACQUISITIONS

Use of 'Other Transaction' Agreements Limited and Mostly for Research and Development Activities

GAO Highlights

Highlights of GAO-16-209, a report to the Ranking Member, Committee on Science, Space, and Technology, House of Representatives

Why GAO Did This Study

Federal agencies use a variety of acquisition and financial assistance mechanisms, such as contracts, grants, and cooperative agreements, to help meet their missions. Some federal agencies have received authorization to use other transaction agreements, which allow an agency to enter into agreements other than traditional mechanisms, such as contracts. As a result, agencies can customize their other transaction agreements to help meet project requirements and mission needs. As GAO reported in May 2002, this authority carries risks, however, because such agreements may be exempt from the Federal Acquisition Regulation and other requirements that are intended to protect taxpayers' interests.

GAO was asked to review federal agencies' use of other transaction authority. This report describes (1) which agencies are authorized to use other transaction agreements and the extent to which agencies have guidance to implement the authority, (2) why agencies used other transaction agreements and for what types of activities, and (3) the extent to which agencies used other transaction agreements for fiscal years 2010 through 2014. GAO reviewed statutory authorizations, agencies' guidance, and information on agencies' other transaction agreements and use for fiscal years 2010 through 2014, and interviewed officials from each of the agencies authorized to use other transaction agreements.

What GAO Recommends

GAO is not making any recommendations in this report.

View GAO-16-209. For more information, contact John Neumann at (202) 512-3841 or neumannj@gao.gov.

What GAO Found

Congress has authorized 11 federal agencies to use other transaction agreements—which generally do not follow a standard format or include terms and conditions required in traditional mechanisms, such as contracts or grants—to help meet project requirements and mission needs. The National Aeronautics and Space Administration (NASA) first received this authority in 1958. Over the next several decades, five additional federal departments were given this authority—Defense (DOD), Energy (DOE), Health and Human Services (HHS), Homeland Security (DHS), and Transportation (DOT). Congress also granted authority to five agencies within these departments, including DOT's Federal Aviation Administration and DHS's Transportation Security Administration (TSA). The statutory authorities for most agencies include some limitations on the use of their agreements, although the extent and type of limitations vary. For example, DOT's authority limits use of other transaction agreements to research, development, and demonstration (RD&D) projects that focus on public transportation. Ten of the 11 agencies have issued guidance to implement their authority. The last agency—the National Institutes of Health (NIH)—is in the process of developing guidance.

Most agencies cited flexibility as a primary reason for their use of other transaction agreements, and used agreements mostly for RD&D activities. Officials from 7 agencies told GAO the authority allowed them to develop customized agreements that addressed concerns over requirements in traditional mechanisms that some companies viewed as potential obstacles to doing business with a federal agency. This flexibility allowed agencies to address concerns regarding intellectual property and cost accounting provisions that would otherwise need to be included when using traditional mechanisms, such as contracts. In addition, other transaction agreements allowed some agencies to tailor other terms and conditions of agreements as needed when working with other entities. Most agencies—9 of the 11—used other transaction agreements for RD&D activities for a range of projects from medical research to energy development research. Two of the 9 agencies—DOD and DHS—also used other transaction agreements for prototype activities. Three agencies, including TSA and NASA, used other transaction agreements for activities not related to RD&D or prototype development, including airport security and education and outreach.

Other transaction agreements were a small proportion of most agencies' contracting and financial assistance activities for fiscal years 2010 through 2014. Compared to traditional mechanisms, most agencies used other transaction agreements sparingly, according to officials. Most agencies had a small number of other transaction agreements—75 or fewer—in fiscal year 2010, and the number of agreements generally remained low by the end of fiscal year 2014. Officials cited budgetary and other reasons for this trend. In contrast, two agencies that used other transaction agreements for activities other than RD&D and prototypes—TSA and NASA—had larger numbers of agreements. In fiscal year 2010, TSA and NASA had about 400 and 2,220 agreements, respectively. By the end of fiscal year 2014, these agencies had increased their use to about 640 and 3,220 agreements, respectively.

Contents

Letter 1

Background 3
Eleven Federal Agencies Are Authorized to Use Other Transaction Agreements and Generally Have Guidance for Use 6
Other Transaction Agreements Offered Agencies Flexibility and Were Used by Most Agencies for RD&D Activities 12
Other Transaction Agreements Were a Small Proportion of Most Agencies' Contracting and Financial Assistance Activities, and the Number of Agreements Was Generally Low 24
Agency Comments 29

Appendix I Objectives, Scope, and Methodology 31

Appendix II Agencies Authorized to Use Other Transaction Agreements and their Statutory Authorities 35

Appendix III GAO Contact and Staff Acknowledgments 36

Tables

Table 1: Agency Use of Other Transaction Agreements for Fiscal Years 2010 through 2014 15
Table 2: Number of Active Other Transaction Agreements by Agency, Fiscal Years 2010 through 2014 27

Figures

Figure 1: Agencies with Permanent or Temporary Other Transaction Authority and Year Granted 7

Abbreviations

ARPA-E	Advanced Research Projects Agency – Energy
DHS	Department of Homeland Security
DOD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
DNDO	Domestic Nuclear Detection Office
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
HHS	Department of Health and Human Services
NASA	National Aeronautics and Space Administration
NIH	National Institutes of Health
RD&D	research, development, and demonstration
TSA	Transportation Security Administration

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

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

January 7, 2016

The Honorable Eddie Bernice Johnson
Ranking Member
Committee on Science, Space, and Technology
House of Representatives

Dear Ms. Johnson:

Federal agencies use a variety of acquisition and financial assistance mechanisms, such as contracts, grants, and cooperative agreements, to help meet their missions. In addition, Congress has authorized certain agencies to enter into agreements under a separate authority, referred to as "other transaction authority." This authority allows an agency to enter into agreements "other than" standard government contracts or other traditional mechanisms. Agreements under this authority are generally not subject to federal laws and regulations applicable to federal contracts or financial assistance, allowing agencies to customize their other transaction agreements to help meet project requirements and mission needs. Furthermore, because fewer requirements apply, other transaction agreements can be useful in attracting entities, such as companies that have traditionally not done business with federal agencies. However, we and others have previously reported that the use of other transaction agreements carries the risk of reduced accountability and transparency, in part because such agreements may not require compliance with federal requirements, such as government cost accounting standards.[1]

You asked us to review federal agencies' use of other transaction authority. This report describes (1) which federal agencies are authorized to use other transaction agreements and the extent to which agencies have guidance to implement the authority, (2) why agencies used other transaction agreements and for what types of activities, and (3) the extent

[1]GAO, *Defense Acquisitions: DOD Has Implemented Section 845 Recommendations but Reporting Can be Enhanced,* GAO-03-150 (Washington, D.C.: Oct. 9, 2002); Congressional Research Service, *Other Transaction (OT) Authority,* RL34760 (Washington, D.C.: Jan. 4, 2012); and National Aeronautics and Space Administration's Office of Inspector General, *NASA's Use of Space Act Agreements*, IG-14-020 (Washington, D.C.: June 5, 2014).

to which federal agencies used other transaction agreements for fiscal years 2010 through 2014.

To determine which agencies are authorized to use other transaction agreements, we reviewed laws and other transaction authority statutes. We also reviewed implementing regulations, and management directives, policies, and guidance to determine which agencies have guidance to implement their authority and to understand how agencies implemented other transaction authority statutes. To determine why agencies used other transaction agreements and for what activities, we reviewed agency documentation including other transaction agreements and modifications, and agency reports to Congress, among other things. We also conducted semi-structured interviews with officials from each agency authorized to use other transaction agreements to discuss the types of activities the agency used other transaction agreements for and examples of these activities. We did not evaluate whether agencies' use of other transaction agreements was in compliance with statutory requirements or how agencies implemented their authority. To determine the extent of agencies' use of other transaction agreements in fiscal years 2010 through 2014, we collected data from the agencies in two ways.[2] For agencies that used other transaction agreements 10 or fewer times during the period from fiscal year 2010 through fiscal year 2014, we requested from agencies documentation on each of these agreements. For agencies that used more than 10 other transaction agreements during the same period, we requested that agencies provide data from their data systems on the number of other transaction agreements used for each fiscal year from 2010 through 2014.[3] For these agencies, we took steps to assess the reliability of the data systems, including interviewing officials to gather information on the data systems used and the specific data provided. We determined that the other transaction agreement data we obtained were sufficiently reliable for the purpose of reporting agencies' extent of use of other transaction agreements during the 5-year period reviewed. We also conducted semi-structured interviews with officials from the agencies to learn about their use of other transaction agreements and the reasons for any trends in agencies' other transaction agreement use. A more detailed

[2]We chose this period of time because it represented the most recent 5-year time period.

[3]Agencies use various data systems to track and record their use of other transaction agreements. For more information, see appendix I.

description of our objectives, scope, and methodology can be found in appendix I.

We conducted this performance audit from January 2015 to January 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate 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.

Background

Several traditional mechanisms are available to carry out federal agencies' acquisition and financial assistance activities. These include contracts, financial assistance mechanisms such as grants and cooperative agreements, and cooperative research and development agreements. Every agency has inherent authority to enter into contracts to procure goods or services for its own use; however, agencies must receive separate authority to provide or award funding or property to benefit someone other than the government, such as through a grant.[4] The traditional mechanisms include the following:

- **Contracts**. These are most often used for the procurement or purchase of goods and services for the direct benefit of the government. Under the Federal Acquisition Regulation (FAR), certain contracts are subject to cost accounting standards and cost principles and procedures. For example, these principles are used in determining the costs the government will reimburse under a cost-reimbursement contract.[5]

- **Financial assistance.** Financial assistance mechanisms include grants and cooperative agreements, which differ in the amount of federal involvement in the project. Under the Federal Grant and Cooperative Agreement Act, an agency is to use a grant agreement when the principal purpose of the relationship is to transfer a thing of value to the recipient to carry out a public purpose of support or

[4]See GAO, *Principles of Federal Appropriations Law*, vol. 2., 3rd ed., ch. 10, 17, GAO-06-382SP (Washington, D.C.: 2006).

[5]FAR § 31. 201-2.

stimulation authorized by law and substantial involvement by the agency is not expected.[6] For grants, an agency's involvement is essentially administrative, which includes standard federal stewardship responsibilities such as reviewing performance to ensure that the objectives, terms, and conditions of the grant are accomplished. Under cooperative agreements, an agency expects to be substantially involved in the project through tasks such as reviewing and approving one stage of a project before work can begin on a subsequent stage.

- **Cooperative research and development agreements.** First authorized in the 1980s,[7] cooperative research and development agreements are written agreements between a federal laboratory and a nonfederal partner to work together on a project; typically, the project focuses on technology transfers.[8] Under cooperative research and development agreements, agencies and nonfederal partners, such as private companies, are able to share resources, technical expertise, and any intellectual property that emerges from the effort, as well as increase the commercialization rate of the federally developed technology.[9]

In addition to these authorities, Congress established "other transaction authority" for certain agencies through separate legislation. Under these authorities, agencies may develop agreements that are not required to follow a standard format or include terms and conditions that are typically required when using traditional mechanisms. Agreements entered into using traditional mechanisms, such as a contract, grant, cooperative agreement, or cooperative research and development agreement, contain terms and conditions to ensure compliance with statutory requirements applicable to those mechanisms. Agreements entered into using other transaction authority, conversely, are not generally subject to these requirements, and the terms and conditions of each individual other

[6]31 U.S.C. § 6304.

[7]Stevenson-Wydler Technology Innovation Act of 1980, Pub. L. No. 96-480 (1980), as amended by the Federal Technology Transfer Act, Pub. L. No. 99-502 (1986).

[8]Technology transfers are the transfer of federally developed technologies to private firms, universities, local governments, and others capable of benefiting from the technologies or further expanding the technologies' benefits by bringing them into the marketplace.

[9]Commercialization is the process of bringing an invention or new technology to market.

transaction agreement may be tailored to meet the specific situation. This flexibility can help agencies attract and partner with entities that have not done business with federal agencies due to concerns about standard government requirements.[10] Other transaction agreements may include various funding arrangements or may be nonreimbursable, where each party bears the costs of their participation and funds are not exchanged. In addition, the length of an other transaction agreement is also negotiable, with some agreements lasting a few days and others for years.

Agencies may use other transaction agreements for a variety of projects and activities. For example, agencies can use other transaction agreements for research, development, and demonstration (RD&D) projects and activities that help advance new technologies or processes. Agencies also may use other transaction agreements for developing and reviewing "prototypes," or physical or virtual models that can help evaluate the technical or manufacturing feasibility, or the military utility, of a particular technology or process, concept, or system.

Although other transaction authority offers benefits to agencies and entities, its use also carries risks. We and others have previously reported that agencies' use of other transaction authority has resulted in reduced accountability and transparency, in part because other transaction agreements may be exempt from the FAR and government cost accounting standards.[11] In addition, we have reported on the challenges agencies face in creating and administering other transaction agreements because these agreements do not have a standard structure based on regulatory guidelines.[12] Previous GAO reports have focused on individual

[10]For reporting purposes, we are using the term "entities" to refer to those parties that enter into an other transaction agreement with the government. An "entity" may be another federal agency, a state and local government agency, private firm, individual, association, corporation, educational institution, or a foreign government or entity.

[11]GAO-03-150; Congressional Research Service, RL34760 (2012); and NASA Office of Inspector General (IG-14-020).

[12]GAO, *Department of Homeland Security: Improvements Could Further Enhance Ability to Acquire Innovative Technologies Using Other Transaction Authority,* GAO-08-1088 (Washington, D.C.: Sept. 23, 2008).

agencies' use of other transaction authority.[13] This report includes information on all agencies with other transaction authority.

Eleven Federal Agencies Are Authorized to Use Other Transaction Agreements and Generally Have Guidance for Use

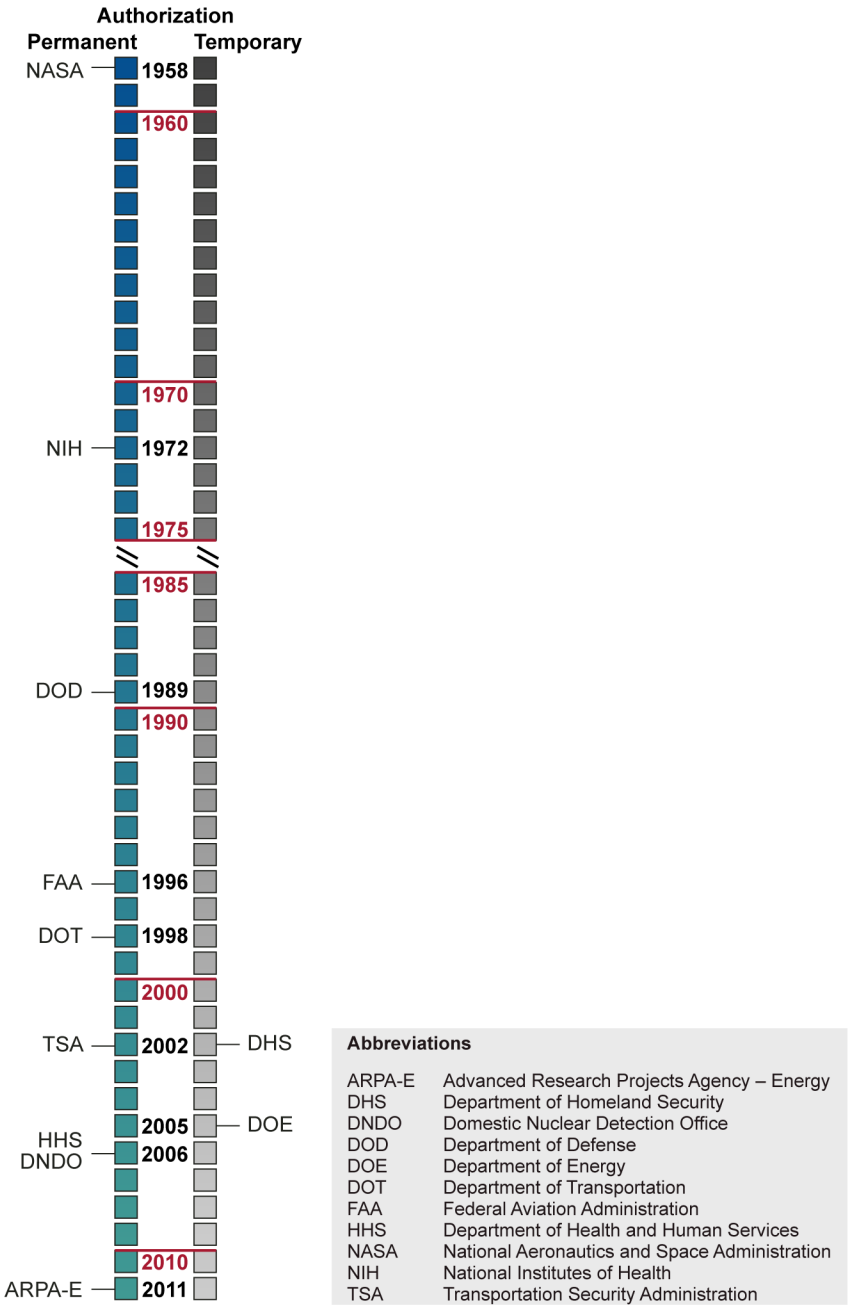
Congress has granted statutory authority to use other transaction agreements to 11 federal agencies.[14] The National Aeronautics and Space Administration (NASA), which was granted the authority in 1958, was the first agency to receive it (see fig. 1).[15] Over the next several decades, the authority to use other transaction agreements was granted to five federal departments—the Departments of Defense (DOD), Energy (DOE), Health and Human Services (HHS), Homeland Security (DHS), and Transportation (DOT). Congress also granted specific authority to use other transaction agreements to several agencies within these departments, including the Federal Aviation Administration (FAA) within DOT and the Transportation Security Administration (TSA) and the Domestic Nuclear Detection Office (DNDO) within DHS. DOE's Advanced Research Projects Agency–Energy, commonly known as ARPA-E, was the most recent agency to receive other transaction authority, which was granted in 2011. In some cases, Congress also provided separate authority to use other transaction agreements to programs within an agency. For example, certain programs within HHS's National Institutes of Health (NIH) were provided separate authority, such as a program that focuses on researching heart, lung, and blood diseases. For the purposes of this report, we will use the term "agencies" to refer to both the federal departments and the agencies within them that have received specific statutory authority to use other transaction agreements. See appendix II for a list of agencies' statutory authorizations to use other transaction agreements.

[13]For example, see GAO-03-150; GAO-08-1088; GAO, *Department of Energy: Implementation and Use of Other Transactions Authority Provided in the Energy Policy Act of 2005,* GAO-08-798R (Washington, D.C.: June 6, 2008); and GAO, *Reimbursable Space Act Agreements: NASA Generally Adhering to Fair Reimbursement Controls, but Guidance on Waived Cost Justifications Needs Refinement,* GAO-11-553R (Washington, D.C.: May 26, 2011).

[14]Agencies carry out their other transaction authority by entering into other transaction agreements. Some agencies commonly refer to their other transaction agreements by other names. For example, NASA uses the term "Space Act Agreements," while DOE uses the term "technology investment agreements." For purposes of this report, we refer to any agreement carried out under other transaction authority as an other transaction agreement.

[15]The National Aeronautics and Space Act of 1958, Pub. L. No. 85-568, § 203 (c).

Figure 1: Agencies with Permanent or Temporary Other Transaction Authority and Year Granted



Sources: GAO analysis of U.S. code, public laws, and agency information. | GAO-16-209

Since initially enacting these other transaction authorities, Congress has expanded the authorities for 2 of the 11 agencies. In 1989, DOD first received other transaction authority for advanced research projects carried out by one of its components, the Defense Advanced Research Projects Agency.[16] Then, in 1991, Congress made this authority permanent and extended it to the entire department.[17] In 1993, Section 845 of the National Defense Authorization Act for Fiscal Year 1994 authorized the Director of the Defense Advanced Research Projects Agency to use other transaction agreements for weapons or weapons systems prototype projects.[18] In 1996, Congress then extended the authority to use other transaction agreements for prototype projects to the entire department.[19] Congress also expanded NIH's other transaction authority to separate programs within the agency. NIH is composed of 27 institutes and centers, each with a specific research agenda.[20] Beginning in 1972, NIH's National Heart, Blood Vessel, Lung, and Blood Diseases and Blood Resources Program was granted other transaction authority.[21] Subsequently, three other NIH programs also received other transaction authority.

While most agencies have permanent other transaction authority, DHS's and DOE's general authorities are temporary.[22] Congress has extended these temporary authorities several times since initially granting them in 2002 and 2005, respectively. As of September 2015, DHS's authority was

[16]Pub. L .No. 101-189, § 251 (1989).

[17]Pub. L. No. 102-190, § 826 (1991).

[18]Pub. L. No. 103-160, § 845 (1993). The National Defense Authorization Act annually authorizes DOD and DOE's national security programs.

[19]Pub. L. No. 104-201, § 804 (1996).

[20]To fulfill its mission to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability, NIH funds research related to life processes and many diseases and conditions. Its institutes and centers that support research outside of the agency are focused on particular diseases, conditions, or research areas and are supported by their own budget, mission, and staff.

[21]Pub. L. No. 92-423, § 3 (1972). This program is funded by the National Heart, Lung, and Blood Institute.

[22]As previously mentioned, TSA, DNDO, and ARPA-E received a separate, permanent authorization to use other transaction agreements.

set to expire at the end of fiscal year 2015 and DOE's at the end of fiscal year 2020. While DOD's other transaction authority for RD&D is permanent, its authority for prototype activities is temporary and is set to expire at the end of fiscal year 2018. Lastly, one of NIH's programs, the Common Fund, also received temporary other transaction authority.[23] Congress has annually extended the authority through appropriations acts since 2004, according to agency officials. As of September 2015, the authority was scheduled to expire at the end of fiscal year 2015.

Most agencies have limitations on their other transaction authorities, although the extent and type of limitations or requirements laid out in the agencies' statutory authorities vary. Seven agencies' authorities include specific limitations or requirements, such as limitations on the types of projects and research for which the other transaction authority may be used. For example, DOT's statutory authority limits the agency's use of other transaction agreements to three types of RD&D projects that focus on public transportation. DOD's statutory authority also lays out several requirements that must be met for RD&D and prototype projects carried out under other transaction agreements. Specifically, to use an other transaction agreement for a RD&D project, entities must, to the extent DOD determines practicable, fund half of the project, and the research being conducted must not duplicate any other ongoing DOD research. The statute also states that DOD can only use other transaction agreements for RD&D when traditional contracts, grants, and cooperative agreements are not feasible or appropriate. To use an other transaction agreement for a prototype project, DOD's statute originally required that the project must be directly relevant to weapons or weapon systems.[24] It also generally requires significant participation of a nontraditional contractor for prototype projects and states that if this requirement cannot

[23]Enacted in 2006, the Common Fund supports cross-cutting NIH programs that require participation by at least two NIH institutes or centers or would otherwise benefit from strategic planning and coordination.

[24]This provision was amended in 2014 and currently provides that the project must be directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense or to the improvement of platforms, systems, components, or materials in use by the Armed Forces. Pub. L. No. 113-291, § 812 (2014).

be met, [25] then an entity other than the federal government must fund at least one-third of a project's total costs, or agency officials must document that exceptional circumstances justify the use of an other transaction agreement and that use of a contract is not feasible or appropriate. In contrast, the statutory authorities for four agencies—NASA, ARPA-E, FAA, and TSA—do not include limitations or requirements specifying the types of projects or research that may be the subject of the agencies' other transaction agreements.[26]

The statutory language for three agencies—DHS, DOE, and HHS—was modeled on DOD's other transaction authority; however, each of the statutes varies slightly from DOD's authority. The three agencies, similar to DOD, require a cost sharing arrangement when using other transaction agreements for RD&D projects. DOE's and HHS's statutory authorities are limited to use of other transaction agreements for RD&D projects. DHS's statutory authority, however, specifies that the agency may use other transaction agreements for both RD&D and prototype projects, similar to DOD's statutory authority. DHS's authority also requires that each other transaction agreement for a prototype project meet requirements similar to those that apply to DOD, including participation of a nontraditional contractor or a cost sharing arrangement. Unlike DOD's authority, DHS's authority does not limit the types of prototype projects that may be carried out using other transaction agreements. In addition, DOE's statutory authority includes a separate requirement that the Secretary of Energy provide written approval that a standard contract,

[25]10 U.S.C. § 2371 note, (d). The term "nontraditional defense contractor" is defined as having the meaning provided by section 2302(9) of title 10 of the US Code. Consistent with this definition, DOD and DHS define a nontraditional contractor as a company that has not, for a period of at least 1 year prior to the date of the other transaction agreement, entered into or performed on (1) any contract that is subject to full coverage under the cost accounting standards; or (2) any other contract in excess of $500,000 to carry out prototype projects or to perform basic, applied, or advanced research projects for a federal agency that is subject to the FAR. However, other agencies also work with contractors that do not traditionally work with the government. These agencies do not have a specific definition for nontraditional contractors.

[26]NASA's interpretation and implementation of its statutory authority limits its use of other transaction agreements to those instances when agency objectives cannot be achieved through the use of a procurement contract, grant, or cooperative agreement.

grant, or cooperative agreement is not appropriate or feasible for the project before the agency uses an other transaction agreement.[27]

To implement their authority, 10 of the 11 agencies have issued guidance to govern their use of other transaction agreements. For example, DHS developed guidance that is used for the components within the agency authorized to use other transaction agreements. This guidance was updated in 2013. TSA developed its own guidance in 2011 for the agency's use of other transaction agreements, which was updated in 2015. While ARPA-E has a separate authority to complete other transaction agreements, as previously discussed, the agency follows DOE's guidance for its use of other transaction agreements. Two agencies—DOT and FAA—incorporated guidance on other transaction agreements use into their agency-wide guidance on financial assistance or contracting.[28] NIH does not have completed guidance for its use of other transaction authority. According to officials, the agency is in the process of developing guidance for its other transaction authority and currently follows the *NIH Grants Policy Statement* when developing its other transaction agreements.[29] According to a NIH official, the agency expects to finalize its guidance in early 2016.

DOD is the only agency to issue separate guidance or regulations for its two types of other transaction agreements activities. For RD&D projects, DOD follows guidance laid out in its Grant and Agreement Regulations, which were updated in 2011. For its use of other transaction agreements for prototype projects, DOD developed separate guidance called *Other Transactions Guide for Prototype Projects,* which was updated in 2002. Since 2001, DOD's statutory authority for use of other transaction agreements has been amended in various National Defense Authorization Acts. For example, in 2006, DOD's authority was amended to require written approval by a Senior Procurement Executive for

[27]Under DOE's implementing regulations for its use of other transaction authority, the Secretary of Energy delegated this authority to an officer within the department that has been appointed by the President of the United States.

[28]DOT's guidance on other transaction agreements is one section of the agency's 2009 *Financial Assistance Guidance Manual,* and FAA's guidance is cited in the agency's 2015 *Procurement Guidance*.

[29]*NIH Grants Policy Statement.* The guidance was first published on October 1, 1998, and last updated on March 31, 2015.

prototype other transaction agreements projects estimated to cost $20 million to $100 million.[30] While DOD did not update its other transaction agreement guidance for prototype projects to reflect the amendment, the agency issued a policy memorandum requiring written approvals of agreements at certain thresholds, in accordance with the statutory change.

Other Transaction Agreements Offered Agencies Flexibility and Were Used by Most Agencies for RD&D Activities

Most agencies cited flexibility as a primary reason for their use of other transaction agreements, specifically to meet the needs of the agency, or the entities entering into these agreements with the agency. Officials from most agencies told us the authority allowed them to develop customized agreements that addressed concerns over requirements in traditional mechanisms that entities viewed as potential obstacles to doing business with a federal agency. The ability to address these issues also enabled agencies to attract and work with specific entities, such as nontraditional contractors. Most agencies used other transaction agreements for RD&D activities.

Agency Officials Cited the Flexibility Other Transaction Authority Provides to Develop Customized Agreements

Officials at 8 of the 11 agencies told us that other transaction authority provided flexibility to develop customized agreements with entities and accomplish projects that they could not have achieved using traditional contracting mechanisms. Officials cited two areas of concern for entities—protection of intellectual property rights and compliance with government cost accounting standards—that other transaction agreements allowed agencies to address. According to agency officials, some entities—particularly companies that have not typically done business with the federal government—wished to secure greater protection of intellectual property rights than would be possible under traditional contracting mechanisms. Officials further noted that some entities also viewed making their accounting systems compliant with federal standards, which could be required with traditional mechanisms, as too great a burden in terms of time or cost. Agencies were able to use other transaction authority to craft agreements addressing these concerns.

[30]Pub. L. No. 109-163, § 823.

Agency officials from seven agencies told us that other transaction authority allowed them to develop agreements that addressed entities' intellectual property concerns. Agencies generally acquire certain rights—although not necessarily ownership—of the intellectual property produced by others under federal research contracts, grants, and other agreements. Entities also face requirements for research done through federal funding, including disclosing inventions to agencies, providing the government with rights to inventions patented, and commercializing or developing the invention, if feasible. When agencies use other transaction agreements, the standard intellectual property provisions and protections that are included in traditional contracting mechanisms do not have to be included in an other transaction agreement. For example, DHS entered into an other transaction agreement with a company to deploy and test a technology to detect explosives that, according to agency officials, was created and funded by the entity. According to agency officials, the company did not want to use a traditional contract due to concerns about losing control over its own intellectual property. According to officials, by using an other transaction agreement, DHS was able to test the technology while ensuring that the company's intellectual property was protected.

Officials from four agencies told us that other transaction authority allowed their agencies to develop agreements that addressed entities' concerns regarding government cost accounting standards. We previously reported that nontraditional contractors generally do not operate accounting systems in compliance with cost accounting standards, and that developing such systems can be cost-prohibitive, according to entities and outside procurement experts.[31] When agencies use other transaction agreements, however, agencies do not have to require entities to meet government cost accounting standards and do not require entities to use accounting systems that adhere to these standards. DOE officials cited an example in which they used an other transaction agreement to address a company's concerns regarding government cost accounting standards. DOE entered into an other transaction agreement in 2008, which is expected to continue through 2017, with a company that had not previously worked with the government. The agreement was for the design, construction, and

[31]GAO, *Homeland Security: Further Action Needed to Promote Successful Use of Special DHS Acquisition Authority,* GAO-05-136 (Washington, D.C.: Dec. 15, 2004).

operation of a biorefinery plant capable of producing large amounts of ethanol. According to DOE officials, the company brought needed expertise to the project but had not previously worked with the government and did not have a government-approved cost accounting system. DOE used the flexibility of its other transaction authority to create an agreement whereby the company was not required to adhere to government cost accounting standards or use a government-approved cost accounting system. However, the agreement did include some requirements for the company's cost accounting system.

Agencies also developed other transaction agreements that included terms and conditions necessary to meet the needs of both parties in a variety of other circumstances. For example, HHS structured an other transaction agreement that included the formation of a committee composed of agency officials and representatives to jointly review data, assess project risks and progress, and make funding decisions throughout the duration of the agreement. The structure of the committee also allowed external advisors to participate, if needed. This joint collaboration allowed the agency to play a more active role in the project than it would have had under a traditional contract, according to agency officials.

Most Agencies Used Other Transaction Agreements for RD&D Activities

Nine of the 11 agencies used other transaction agreements for RD&D activities for fiscal years 2010 through 2014 (see table 1). Two of these agencies also used other transaction agreements for prototype activities. Three agencies used other transaction agreements for other activities; of these, one used it only for activities not related to RD&D or prototypes. DHS's DNDO did not use other transaction agreements during the period we reviewed.

Table 1: Agency Use of Other Transaction Agreements for Fiscal Years 2010 through 2014

Agency	Types of activities		
	RD&D	Prototype	Other
Advanced Research Projects Agency – Energy (ARPA-E)	✓		
Department of Defense (DOD)	✓	✓	
Department of Energy (DOE)	✓		
Department of Health and Human Services (HHS)	✓		
Department of Homeland Security (DHS)	✓	✓	
Department of Transportation (DOT)	✓		
Domestic Nuclear Detection Office (DNDO)[a]			
Federal Aviation Administration (FAA)	✓		✓
National Aeronautics and Space Administration (NASA)[b]	✓		✓
National Institutes of Health (NIH)	✓		
Transportation Security Administration (TSA)			✓

Sources: GAO analysis of agencies' information. | GAO-16-209

[a]DNDO did not enter into any other transaction agreements for fiscal years 2010 through 2014.

[b]According to officials, NASA does not acquire RD&D services using other transaction agreements, but it does conduct collaborative RD&D activities with outside entities.

Nine Agencies Used Other Transaction Agreements for RD&D

Agencies used other transaction agreements for a wide range of RD&D activities for fiscal years 2010 through 2014, according to agencies' documents and officials. These RD&D activities included DOE and ARPA-E research on solar energy development and geothermal energy development; HHS and NIH research on medical issues including research into diseases, biomedical advances, and pharmaceutical development, among others; DOD research on improving security at military installations; DOT research to enhance oil and gas pipeline safety; FAA research on safe unmanned aerial system operations in the national

airspace; [32] DHS research into enhancing critical infrastructure protection, such as protecting the chemical, dam, and water sectors; and NASA research to evaluate new engine sensors. Specific examples of agencies' RD&D projects carried out using other transaction agreements during the 5-year period we reviewed include the following:

- In 2010, ARPA-E entered into an other transaction agreement with a commercial oil and energy company to research and develop new drilling technology to access geothermal energy. Specifically, according to agency documentation, the technology being tested was designed to drill into hard rock more quickly and efficiently using a hardware system to transmit high-powered lasers over long distances via fiber optic cables and integrating the laser power with a mechanical drill bit. According to ARPA-E documents, this technology could provide access to an estimated 100,000 or more megawatts of geothermal electrical power in the United States by 2050, which would help ARPA-E meet its mission to enhance the economic and energy security of the United States through the development of energy technologies. According to ARPA-E officials, an other transaction agreement was used due to the company's concerns about protecting its intellectual property rights, in case the company was purchased by a different company in the future. Specifically, one type of intellectual property protection known as "march-in rights" allows federal agencies to take control of a patent when certain conditions have not been met, such as when the entity has not made efforts to commercialize the invention within an agreed upon time frame.[33] Under the terms of ARPA-E's other transaction agreement, march-in rights were modified so that if the company itself was sold, it could choose to pay the government and retain the rights to the technology developed under the agreement. Additionally, according to DOE officials, ARPA-E included a United States competitive clause in the agreement that required any invention developed under the agreement to be substantially manufactured in the United States, provided products were also sold in the United States, unless the company showed that it was not commercially feasible to do so. This agreement lasted until fiscal year 2013, and ARPA-E obligated about $9 million to it.

[32]Unmanned aerial systems are also referred to as "unmanned aerial vehicles," "unmanned aircraft systems," "remotely piloted aircraft," "unmanned aircraft," or "drones."

[33]GAO, *Federal Research: Information on the Government's Right to Assert Ownership Control over Federally Funded Inventions,* GAO-09-742 (Washington, D.C.: July 27, 2009).

- In 2013, HHS entered into an other transaction agreement with a pharmaceutical company to conduct research to evaluate the efficacy and safety of the company's portfolio of antibiotic candidates under development for treating hospital and biological threat infections, such as staph infections that cannot be treated with existing antibiotics. According to HHS officials, the use of an other transaction agreement provided the agency flexibility to work with the company even though it did not have a government-approved federal cost accounting system. According to officials, another advantage of the other transaction agreement was HHS's ability to mitigate risk by directing funds to the most promising antibiotic candidate during the project, which would have been more difficult and untimely under a traditional contracting mechanism. Specifically, under the agreement, if an antibiotic candidate was not successful, HHS and the company would be able to move funding from the unsuccessful antibiotic candidate to a different, more promising one without having to enter into a new agreement. HHS officials told us that they also used other transaction authority's flexibility to alleviate the company's intellectual property concerns, while ensuring certain data rights for HHS.[34] To date, HHS has obligated $80 million to this agreement.

- Beginning in 2004 and continuing through mid-2015, NIH used other transaction agreements for its Nanomedicine Program that focused on conducting and applying biological and medical research to develop technologies and treatments for disease, according to agency documents and officials.[35] Under this program, NIH entered into other transaction agreements with 23 universities. For example, an agreement with one university was to research and then engineer cells or cell-like devices to perform "smart" therapeutic functions—such as repairing tissue or treating microscopic tumors or cardiovascular lesions—with the aim to be able to recognize and distinguish cancer cells from normal cells and to be able to respond

[34]In addition to the traditional categories (patents, trademarks, and copyrights) of intellectual property protections, government procurement regulations provide policies and procedures for "data rights." FAR Subpart 27.4. These regulations address the rights and obligations of the government relating to computer software and technical data, and these rights may include permission for the government to use, reproduce, disclose, modify, adapt, or disseminate data created from research funded with federal funds.

[35]While NIH has four different authorities to enter into other transaction agreements (as previously discussed), to date, according to agency officials, NIH has only used its Common Fund other transaction authority to enter into other transaction agreements.

with precise therapeutic action, such as targeted cell killing or anti-cancer responses. Due to scientific uncertainty associated with the project's goal of translating fundamental research into clinical applications, a NIH official told us that other transaction agreements provided flexibility to address the uncertainty by allowing NIH to adjust the project's strategy over time based on research results. For example, NIH was able to add and remove collaborators, and, in some cases, eliminate funding to entire projects, according to officials. According to a NIH official, the use of other transaction agreements allowed the agency to direct the course of the research to a greater extent than would have been possible using traditional contracting or grant mechanisms, where a project's strategy is more certain at the start. NIH obligated $73.6 million for fiscal years 2010 through 2014 to the Nanomedicine Program.

In addition, according to NASA officials, the agency uses other transaction agreements to partner with entities on collaborative RD&D projects that further the state of research on a topic but do not directly benefit the agency. For example, NASA partnered with a private company to jointly conduct communications technology research, according to officials. Officials explained that for RD&D services that directly benefit the agency, NASA uses contracts, rather than other transaction agreements.

Two of the Nine Agencies Also Used Other Transaction Agreements for Prototype Activities

Two agencies that used other transaction agreements for RD&D—DOD and DHS—also used agreements for prototype activities. These activities included DOD's military technology activities and DHS's energy security activities. Specific examples of these agencies' prototype projects that used other transaction agreements for fiscal years 2010 through 2014 include the following:

- In 2011, DOD entered into a 2-year other transaction agreement with a nontraditional contractor for the development of a new military sensor system. According to the agreement documentation, this military sensor system was intended to demonstrate DOD's ability to quickly react to emerging critical needs through rapid prototyping and deployment of sensing capabilities. By using an other transaction agreement, DOD planned to use commercial technology, development techniques, and approaches to accelerate the sensor system development process. The agreement noted that commercial products change quickly, with major technology changes occurring in less than 2 years. In contrast, according to the agreement, under the typical DOD process, military sensor systems take 3 to 8 years to complete, and may not match evolving mission needs by the time the

system is complete. According to an official, DOD obligated $8 million to this agreement.

- In 2008, DHS entered into an other transaction agreement, expected to last until May 2017, with a company that worked with two nontraditional contractors to develop, design, and deploy a new type of superconductor electric cable system. According to the agreement and DHS's *Other Transaction Authority: Fiscal Year 2012 Report to Congress*, this system could be used to rebuild the nation's electric power grid and better protect it from power surges and potential blackouts. During the first phase of the project, the companies worked to develop the cable technology. The second phase of the project involves the companies installing and testing the technology through a pilot demonstration. According to the DHS report, an other transaction agreement was used because it is generally not appropriate for the agency to use a traditional contract or other financial assistance arrangement for consortia relationships with multiple parties. Because of the flexibility of an other transaction agreement, the company and the nontraditional contractors were able to share the burden of financial and technical risk with industry partners during the development of the technology in exchange for commercialization opportunities, according to an agency document. The DHS report also noted that the agreement's flexibility allowed DHS to address the nontraditional contractors concerns over regulatory and statutory requirements, intellectual property, licensing rights, and audits. Additionally, according to the DHS report, the agreement supported more collaborative team dynamics between the company and the nontraditional contractors, which strengthened the commercialization opportunities. DHS obligated about $34 million to this agreement.

Three Agencies Used Other Transaction Agreements for Activities Other Than RD&D or Prototype Activities

In all, three agencies used other transaction agreements for non-RD&D or prototype activities. Officials from two agencies—TSA and NASA—told us the agencies used other transaction agreements for fiscal years 2010 through 2014 for an array of activities that were not related to RD&D or prototype activities. According to agency officials, both agencies used other transaction agreements for activities that could not be accommodated through their traditional contracts and other financial assistance mechanisms. TSA used other transaction agreements for various programs, such as programs to enhance airport security. NASA used other transaction agreements for several purposes, including education and outreach, providing entities access to unused or underused NASA facilities, and supporting the International Space Station. Officials at one other agency—FAA—told us that, while the agency's primary use of other transaction agreements was for RD&D

activities, the agency also used agreements for activities not related to RD&D.

TSA's primary use of other transaction agreements for fiscal years 2010 through 2014 was to partially or fully reimburse airport authorities and municipalities for costs of participating in various TSA transportation security programs.[36] According to agency officials and data, airport and aviation security is a large portion of TSA's other transaction agreement use. The agency's policy notes that other transaction agreements are "best suited for situations where an entity is not a traditional contracting partner…if there are cost sharing mechanisms that require the recipient to contribute to the overall cost of the effort, or if the recipient must recoup all costs from third party user fees." TSA officials stated that the agency cannot use a traditional contracting mechanism for these transportation security programs because TSA does not own the airport or transit property. In addition, agency officials stated that TSA cannot enter into a contract with an outside organization to perform work on property owned by another organization and, therefore, must use other transaction agreements in these instances. According to officials, TSA used other transaction agreements for 13 programs, including reimbursing airport authorities for utility costs incurred by TSA's electronic baggage screening and checkpoints, providing training on improvised explosive recognition for transportation industry and related security personnel, and providing programs to enhance airport security. Three of TSA's programs that use other transaction agreements for airport and aviation security include the law enforcement officer program, the canine program, and the checked baggage program, described below.

- TSA operates a law enforcement officer program that uses other transaction agreements to reimburse airports for the costs of local law enforcement officers who provide security services for TSA. For each officer's work in the law enforcement officer program, TSA reimburses the airport a portion of the per hour labor costs. As of September 30, 2014, 310 airports where TSA provides airport security were participating, including 25 of the 28 largest airports, such as Chicago's O'Hare International Airport, according to TSA data. Many smaller, regional airports were also participating. According to TSA officials, these officers provide for the safety and security of people and

[36]Officials stated that airport authorities must "opt in" or apply to participate in some of these programs, as the airports are not automatically enrolled.

property against crime, as well as support TSA's screening operations.

- TSA operates a canine program that uses other transaction agreements to fund local and state participants who provide law enforcement officers to serve as dog handlers at airports, mass transit systems, and maritime and other facilities. Under these agreements, TSA provides the dogs and training for the handlers, among other things. TSA reimburses airports a flat amount per dog handler per year for qualified expenses, including payroll expenses for dog handlers, as well as dog-related costs, such as dog food and veterinary costs. As of the October 2014, there were 78 airports participating in the canine program, including 28 large airports and some smaller, regional airports, and 23 mass transit systems, such as the Metrorail in Washington, D.C.

- TSA's checked baggage program uses other transaction agreements to reimburse airports for costs associated with the infrastructure required to help the agency install, update, or replace checked baggage screening systems. This includes items such as demolition costs, electrical and communications infrastructure costs, and design and construction management costs. In general, according to agency documentation, TSA will reimburse large and medium airports up to 90 percent of allowable costs and smaller airports up to 95 percent of allowable costs. In some instances, TSA has fully reimbursed the airports for allowable costs.

According to officials, NASA used other transaction agreements for several other types of activities for fiscal years 2010 through 2014.[37] First, according to officials, NASA used other transaction agreements for use permits, which allowed the agency to rent certain unused or underused facilities to entities to offset the cost of maintaining those facilities for future agency use. NASA officials explained that shifts in the agency's programs, such as ending the Space Shuttle Program, have resulted in the agency increasing its efforts to leverage its existing resources. A second type of activity was to set up reimbursable funding scenarios

[37]As previously discussed, NASA cannot use an other transaction agreement for any activity that could be completed using a contract, grant, or cooperative agreement. Moreover, any project which primarily benefits NASA or is intended to meet a NASA need must be performed using a contract rather than an other transaction agreement, according to officials.

whereby entities use NASA goods, services, facilities, or equipment to advance the entities' own interests.[38] In these other transaction agreements, NASA's costs associated with the undertaking are fully or partially reimbursed by the entity. According to officials, a third type of activity was to work with international partners to support collaborative activities, such as the International Space Station. The fourth type of activity was outreach and education efforts, according to officials. For example, NASA partnered with public high schools through an agency program that provided hands-on projects for students to complete that may be later used for NASA programs and projects. Lastly, NASA officials told us the agency used other transaction agreements to facilitate the commercial use of space. Officials cited an example where the agency entered into an agreement to stimulate the development of space capabilities that did not directly benefit NASA, but may be used by commercial customers or the government in the future. For example, according to officials, NASA used other transaction agreements for its Commercial Orbital Transportation Services that helped industry develop privately operated space transportation systems. According to officials, these activities help NASA meet its mission and goals.

Three specific examples of NASA's use of other transaction agreements for fiscal years 2010 through 2014 are as follows:

- Beginning in 2009 and lasting until April 2010, NASA and a company had an other transaction agreement that allowed the company to use NASA's Supersonic Wind Tunnel in Cleveland, Ohio, according to NASA documents and officials. The company used the wind tunnel to test a full-sized missile to determine flight characteristics at very high speeds, according to officials. NASA received about $1.4 million under this agreement, which was used to help pay NASA's costs to keep the wind tunnel operational, including electricity and maintenance costs, according to NASA officials.

- In 2010 and 2011, NASA entered into a series of other transaction agreements to fund five companies' efforts to design and develop system concepts, key technologies, and capabilities that could transport commercial crew and cargo in space. In 2012, NASA entered into other transaction agreements with three of the five

[38]NASA refers to entities with which the agency enters into other transaction agreements as "partners."

companies to fund related projects to design and develop transportation systems for spacecraft and launch vehicles, among other things. We reported that as of 2014 NASA had spent over $1 billion on these efforts. [39]

- Beginning in 2000 and lasting until 2015, NASA had an other transaction agreement to collaborate with the French National Center for Space Studies to develop, launch, and operate a laboratory for the International Space Station. Specifically, under the agreement, NASA provided launch and return capabilities for transporting laboratory equipment to the International Space Station and for on-orbit accommodations for the laboratory, as well as other resources. According to NASA officials, both the NASA and French teams worked on multiple projects under the agreement and shared scientific data with each other. According to a NASA document, information learned from the laboratory may help in the design and processing of a new material that could ultimately result in manufacturing advances. No funds were exchanged between NASA and the French National Center for Space Studies for activities carried out under the agreement.

Officials from FAA said that, while the agency primarily used other transaction agreements for RD&D activities, the agency occasionally used its authority for other activities during the 5-year period under review. Specifically, FAA officials estimated that about 10 percent of the agency's other transaction agreements use was for other purposes. For example, FAA used an other transaction agreement to provide training for air traffic controllers in Afghanistan, according to an official. According to the official, in most instances, training for air traffic controllers in the United States is typically conducted by federal employees or is funded through contracts.

[39]GAO, *NASA: Assessments of Selected Large-Scale Projects,* GAO-14-338SP (Washington, D.C.: Apr. 15, 2014).

Other Transaction Agreements Were a Small Proportion of Most Agencies' Contracting and Financial Assistance Activities, and the Number of Agreements Was Generally Low

Most agencies used other transaction agreements sparingly compared to traditional contracting and other financial assistance mechanisms, generally because they identified few situations that justified or necessitated the use of other transaction agreements, according to officials. In addition, most agencies managed a small number of other transaction agreements in fiscal year 2010, and the number of agreements remained steady or declined by fiscal year 2014. TSA and NASA, in contrast, had larger numbers of other transaction agreements in fiscal year 2010, and these numbers increased by the end of fiscal year 2014.

Officials Noted the Use of Other Transaction Agreements Was a Small Proportion of Most Agency's Annual Contracting and Financial Assistance Activities

Most agencies used other transaction agreements sparingly compared to traditional mechanisms, according to officials. Specifically, officials from 10 of the 11 agencies—all except TSA—said that dollars spent on other transaction agreements accounted for 5 percent or less of their agencies' total expenditures on all mechanisms over the 5-year period from fiscal year 2010 through fiscal year 2014.[40] Furthermore, officials told us that the number of other transaction agreements they used each year during the period was small compared to the number of traditional mechanisms used. For example, FAA officials told us they use contracts and grants with much greater frequency than they use other transaction agreements. Similarly, officials from one of DOD's components that used other transaction agreements during this period estimated that it used 10 times as many contracts as it did other transaction agreements.

[40]For some agencies, the percent of obligated federal dollars spent on other transaction agreements is not, by itself, a valid indicator of the extent of use because some other transaction agreements do not involve funding. For example, whether and how much funding was involved in NASA's other transaction agreements from fiscal year 2010 through fiscal year 2014 varied. Some agreements involved no exchange of funds. In some cases, NASA received funding from an entity, and in others, NASA provided funding to an entity. We reported in November 2011, for instance, that NASA provided hundreds of millions of dollars in funding under other transaction agreements to companies to stimulate the development of large-scale commercial space transportation capabilities. See GAO, *Key Controls NASA Employs to Guide Use and Management of Funded Space Act Agreements Are Generally Sufficient, but Some Could be Strengthened and Clarified*, GAO-12-230R (Washington, D.C.: Nov. 17, 2011).

Other transaction agreements made up a small proportion of most agencies' contracting and financial assistance activities because agencies identified relatively few situations that justified or necessitated its use, according to officials. Agency officials generally told us they used other transaction agreements only when contracts, grants, and other mechanisms were not suitable, and that in most cases traditional mechanisms, rather than other transaction agreements, were able to meet the needs of a project or activity. For example, FAA officials said that they have generally found contracts and grants able to meet their needs, and that they only considered using other transaction agreements after ruling out the use of contracts or grants due to special intellectual property or other needs. In addition, officials from one of DOD's components said that they used other transaction agreements for the handful of times that contracts and grants did not meet the needs of a project, such as when a nontraditional contractor sought an agreement containing special intellectual property provisions. In most cases, they said, traditional contracts and grants allowed the agency to meet its needs. Officials from most agencies said that even though they used other transaction agreements sparingly, the authority allowed them to carry out activities that they otherwise would not have been able to do.

DOE officials said that the agency's relatively low use of other transaction agreements is in part a result of its regulations governing its use of other transaction authority. These regulations stem from DOE's adoption in 2005 of DOD's regulations on the use of other transaction agreements for RD&D activities.[41] According to some agency officials, DOE's regulations—because they are based on DOD's regulations—include requirements that limit DOE's use of other transaction agreements. For example, DOE's regulations requiring entities to fund a portion of an other transaction agreement project may limit the participation of small businesses in DOE other transaction agreements, according to officials. Officials told us they plan to seek approval from the Office of Management and Budget to modify the agency's other transaction regulations to better reflect DOE's mission, consistent with its statutory

[41]As previously discussed, the Energy Policy Act of 2005 authorized DOE to use other transaction agreements and required DOE to issue guidelines for using agreements within 90 days. Even though the act did not require DOE to enact regulations governing the agency's use of other transaction agreements, DOE decided to meet the 90-day deadline by adopting DOD's existing regulations for the use of other transaction agreements for RD&D activities.

authority. According to DOE officials, if the changes are approved, DOE may increase its use of other transaction agreements.

According to officials from two agencies, infrequent use of other transaction agreements resulted in the agreements being more time-consuming and challenging to establish. In particular, officials told us that because they seldom used other transaction agreements, developing agreements took longer than developing traditional contracting mechanisms. Officials from one of the DOD components that used other transaction agreements for fiscal years 2010 through 2014 told us that because this component rarely used agreements compared to traditional mechanisms, officials had relatively little experience developing the agreements. As a result, each of the component's agreements took a long time to develop. Similarly, NIH officials said that since other transaction agreements were used infrequently, they faced challenges in making officials involved in the agreements aware of the flexibilities afforded by other transaction authority.

Unlike most agencies, one agency—TSA—has programs that used other transaction agreements for a large proportion of work with outside entities. For example, officials from TSA's canine and law enforcement officers programs told us their programs spent about 50 percent and nearly 100 percent, respectively, of annual obligated federal dollars on other transaction agreements for fiscal years 2010 through 2014. Similarly, officials from the agency's checked baggage program told us that, in most years during this period, the program spent more than 40 percent of its annual obligated federal dollars on other transaction agreements. According to officials, other transaction agreements are appropriate for a large proportion of these programs' work with outside entities because the programs are obtaining indirect benefits by having airports and other entities participate in TSA security programs, rather than direct benefits that would be expected through a contract.

The Number of Other Transaction Agreements Used Remained Low for All but Two Agencies

Most agencies managed a small number of other transaction agreements in fiscal years 2010 through 2014. Specifically, 9 out of 11 agencies managed 75 or fewer other transaction agreements in fiscal year 2010, and the number of agreements used remained low by the end of fiscal year 2014 (see table 2). DNDO was the one agency with other

transaction authority that did not enter into any agreements during this period.[42]

Table 2: Number of Active Other Transaction Agreements by Agency, Fiscal Years 2010 through 2014

The totals in the table include all active other transaction agreements, both ongoing agreements as well as those started during this period.

Agency	2010	2011	2012	2013	2014
Advanced Research Projects Agency – Energy[a] (ARPA-E)	3	3	3	3	0
Department of Defense (DOD)	69	76	88	77	79
Department of Energy (DOE)	2	3	3	3	3
Department of Health and Human Services (HHS)	0	0	0	1	1
Department of Homeland Security (DHS)	19	14	8	4	3
Department of Transportation (DOT)	75	54	30	26	21
Domestic Nuclear Detection Office (DNDO)	0	0	0	0	0
Federal Aviation Administration (FAA)	44	48	54	60	65
National Aeronautics and Space Administration (NASA)	2,217	2,611	2,891	3,080	3,223
National Institutes of Health (NIH)	6	6	6	5	5
Transportation Security Administration (TSA)	408	435	564	579	637

Sources: GAO analysis of agencies' data and documentation. | GAO-16-209

[a]ARPA-E did not have its own other transaction authority until 2011. The three agreements shown above were carried out under DOE's other transaction authority. To date, ARPA-E has not used its own other transaction authority, according to officials.

Of the nine agencies that managed 75 or fewer other transaction agreements in 2010, eight agencies—all except FAA—had generally flat or declining numbers of agreements by the end of fiscal year 2014. Officials from these eight agencies cited budgetary changes and other reasons for having a flat or declining number of agreements during this

[42]DNDO is the only agency with other transaction authority that has not used this authority to date. Officials from this agency told us they view other transaction authority as a valuable tool to be used only when contracts, grants, and cooperative agreements are not suitable for a project or activity and that, to date, they have not identified projects or activities that necessitate its use.

period. For example, DOE officials said that the agency's use of other transaction authority was flat after fiscal years 2011 and 2012 because it used American Recovery and Reinvestment Act funding in 2011 and 2012 to establish new other transaction agreements; it has not entered into any new agreements since its budget levels returned to normal. Temporary authorization to use other transaction agreements also affected at least one agency's use of its authority during this period. Specifically, DHS officials told us that the temporary nature of its other transaction authority made planning other transaction agreements use difficult. As a result, officials said that use of other transaction authority had declined during the 5-year period. In the case of FAA, the number of other transaction agreements increased over the 5-year period. One reason cited by officials for this trend was that in fiscal year 2014, FAA entered into eight new other transaction agreements to meet a congressional mandate to develop standards for using unmanned aerial systems.

In contrast, TSA and NASA—two agencies that used other transaction agreements for projects and activities other than RD&D and prototypes—had the largest number of other transaction agreements in fiscal year 2010. In fiscal year 2010, TSA and NASA had about 400 and 2,220 agreements, respectively. By the end of fiscal year 2014, these agencies had increased their use to about 640 and 3,220 agreements, respectively. TSA's increased use of other transaction agreements was mostly driven by its checked baggage program, which provides funding through agreements to airports to design and construct the infrastructure needed to install equipment for screening checked baggage. TSA officials told us that electronic screening equipment installed in the years immediately after the attacks of September 11, 2001, reached the end of a 10-year life cycle starting in 2012, resulting in the agency entering into new agreements to facilitate TSA's recapitalization of the screening equipment, which included updating equipment.[43] NASA officials attributed the agency's increased use, in part, to changes in programmatic priorities, such as the retirement of the Space Shuttle, which allowed a greater number of agency resources to be made

[43]As previously described, TSA uses its other transaction authority for the build out of infrastructure necessary for the agency to install and maintain the electronic screening equipment.

available to outside entities.[44] Agency officials told us they sought to better leverage these resources and offset certain costs by entering into other transaction agreements with outside entities that share interests with NASA and are willing to reimburse it for the use of NASA goods, services, facilities, or equipment.[45]

Agency Comments

We provided the Secretaries of Defense, Energy, Health and Human Services, Homeland Security, Transportation, and the Administrator of NASA with a draft of this report for their review and comment. The Department of Defense and the Department of Energy had no comments on our report. The Department of Homeland Security, the Department of Health and Human Services, the Department of Transportation, and NASA provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretaries of Defense, Energy, Health and Human Services, Homeland Security, Transportation, and the Administrator of NASA, and other interested parties. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

[44]Agency officials noted that NASA had hundreds of international other transaction agreements for each fiscal year of the 5-year time period.

[45]We have previously reported on NASA's use of other transaction agreements for these types of activities. See GAO-11-553R.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or neumannj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix IV.

Sincerely yours,
John Neumann
Director, Natural Resources and Environment

Appendix I: Objectives, Scope, and Methodology

The report describes (1) which federal agencies are authorized to use other transaction agreements and the extent to which agencies have guidance to implement the authority, (2) why agencies used other transaction agreements and for what types of activities, and (3) the extent to which federal agencies used other transaction agreements for fiscal years 2010 through 2014. We chose this time period because it represented the most recent 5-year time period.

To determine which agencies are authorized to use other transaction agreements, we reviewed laws and other transaction authority statutes. We also reviewed laws and statutes to identify any limitations on or requirements for agencies' use of other transaction authority. We reviewed agencies' implementing regulations, and management directives, policies, and guidance to determine which agencies have guidance to implement the authority and to understand how agencies implemented other transaction authority statutes. We conducted semi-structured interviews by telephone and in-person with agency officials from April through June 2015 to learn about agencies' use of other transaction authority, including agencies' guidance for other transaction authority use and when, if at all, the guidance had been last updated, among other things.[1] Prior to conducting the interviews, we pretested the interview questions with three of the agencies authorized to use other transaction agreements. We conducted pretests to make sure that the questions were clear and unbiased and that they did not place an undue

[1]We conducted semi-structured interviews with each of the agencies authorized to use other transaction agreements, as well as the components within each agency that used other transaction agreements in fiscal years 2010 through 2014. The agencies were: the Department of Defense (DOD); the Department of Energy (DOE); the Advanced Research Projects Agency – Energy (ARPA-E); the Department of Health and Human Services' (HHS); the National Institutes of Health (NIH); the Department of Homeland Security's (DHS); the Transportation Security Administration (TSA); the Domestic Nuclear Detection Office (DNDO); the Department of Transportation's (DOT); the Federal Aviation Administration (FAA); and the National Aeronautics and Space Administration (NASA). We also conducted semi-structured interviews with the components within each agency that used the agency's other transactions authority from fiscal years 2010 through 2014, but do not have separate authorization. The components were: DOD's Department of the Air Force, Department of the Army, Defense Advanced Research Projects Agency, Defense Threat Reduction Agency, the Department of the Navy's Office of Naval Research, and U.S. Special Operations Command; DOE's Office of Energy Efficiency and Renewable Energy; HHS's Office of the Assistant Secretary for Preparedness and Response; DHS's Science and Technology Directorate; and DOT's Pipeline and Hazardous Materials Safety Administration.

burden on officials. We made appropriate revisions to the content and format of the questionnaire after the pretests.

To determine why agencies used other transaction agreements and for what types of activities, for each agency we reviewed agency documentation, including examples of other transaction agreements and modifications, federal financial reports, agency reports to Congress, and information related to other transaction agreements on agency websites. During our semi-structured interviews with officials from each agency, we also discussed types of activities for which the agency used other transaction agreements, including specific examples of projects and the reasons why other transaction agreements, rather than traditional mechanisms, were used in these situations. We did not evaluate whether agencies' use of other transaction agreements was in compliance with statutory requirements.

To determine the extent of agencies' use of other transaction agreements for fiscal years 2010 through 2014, we collected data from the agencies in two ways. First, for the four agencies that used 10 or fewer other transaction agreements during the 5-year period we reviewed, we requested agencies' documentation for all of these other transaction agreements, including copies of the agreements and any modifications, as well as related agreement documentation, such as federal financial statements. The four agencies were the Department of Energy (DOE), Advanced Research Projects Agency-Energy (ARPA-E), the Department of Health and Human Services (HHS), and the National Institutes of Health (NIH). We did not collect any data or agreement documentation from the Domestic Nuclear Detection Office (DNDO), as the agency did not enter into any other transaction agreements during this time period, according to officials. Second, for the six agencies that used more than 10 other transaction agreements during the period from fiscal year 2010 through fiscal year 2014, we requested that agencies provide data on other transaction authority use from the data systems they use to capture

and store this information.[2] The six agencies were the Department of Defense (DOD), the Department of Homeland Security (DHS), the Department of Transportation (DOT), the Federal Aviation Administration (FAA), the National Aeronautics and Space Administration (NASA), and the Transportation Security Administration (TSA). Specifically, we requested that these agencies provide data on the number of active other transaction agreements in each fiscal year from 2010 through 2014 that agencies classified as either new or ongoing. We defined a new agreement as one that began during a fiscal year, and an ongoing agreement as one that was continuing during the fiscal year. For example, if an agreement began in fiscal year 2010 and lasted for 3 years, it would be considered a new agreement in fiscal year 2010 and an ongoing agreement in fiscal years 2011 and 2012. To assess the reliability of agencies' data systems for each agency from which we requested data, we interviewed agency officials regarding their data systems and the internal controls in place for these systems. We also reviewed agency documentation for the data systems, such as procedures for using the data systems. We found the other transaction agreement data sufficiently reliable for the purpose of reporting the relative use of other transaction agreements by the six agencies. We conducted semi-structured interviews with officials from the agencies to gather additional information about the data each agency tracks on other transaction agreements, the extent of each agency's use of other transaction agreements per fiscal year, and the reasons for any trends in agencies' other transaction agreement use during the period we reviewed.

We conducted this performance audit from January 2015 to January 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our

[2]DOD, DHS, and TSA each report other transaction agreement data into the Federal Procurement Database-Next Generation, which is the primary government-wide contracting database and provides information on government contracting actions, procurement trends, and achievement of socioeconomic goals, such as small business participation. According to DHS officials, DHS also reports its other transaction agreement data into PRISM, a contracting writing management system that provides support for Federal Acquisition Regulation based acquisitions. According to DOT and FAA officials, these agencies also use PRISM to track and report their other transaction agreement. NASA uses two different databases to track its other transaction agreement data—the Space Act Agreements Maker for domestic agreements and the System for International and Interagency External Relations Agreements for international agreements.

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 II: Agencies Authorized to Use Other Transaction Agreements and their Statutory Authorities

Agency	Other transaction authority as currently enacted[a]	Public Law providing initial authorization
Department of Defense (DOD)		
For research, development, and demonstration activities	10 U.S.C. § 2371	Pub. L. No. 101-189, § 251 (1989)
For prototype activities	10 U.S.C. § 2371 note	Pub L. No. 103-160, § 845 (1993)
Department of Energy (DOE)	42 U.S.C. § 7256	Pub. L. No. 109-58, § 1007 (2005)
Advanced Research Projects Agency-Energy (ARPA-E)	42 U.S.C. § 16538	Pub. L. No. 111-358, § 904 (2011)
Department of Health and Human Services (HHS)	42 U.S.C. § 247d-7e	Pub. L. No. 109-417, § 401 (2006)
National Institutes of Health (NIH)		
For National Heart, Blood Vessel, Lung, and Blood Diseases and Blood Resources Program	42 U.S.C. § 285b-3	Pub. L. No. 92-423, § 3 (1972)
For Common Fund		
For certain demonstration projects	Consolidated Appropriations Act, 2015, Pub. L No. 113-235,div. G, title II, § 213,128 Stat. 2487	Pub. L. No. 108-199, div. E, title II, § 221, 118 Stat. 256 (2004)
For Cures Acceleration Network		
	42 U.S.C. § 284n	Pub. L. No. 109-482, § 105 (2007)
	42 U.S.C. § 287a	Pub L. No. 111-148, § 10409 (2010)
Department of Homeland Security (DHS)	6 U.S.C. § 391	Pub. L. No. 107-296, § 831 (2002)
Domestic Nuclear Detection Office (DNDO)	6 U.S.C.§ 596	Pub. L. No. 109-347, § 501 (2006)
Transportation Security Administration (TSA)	49 U.S.C. § 114(m)	Pub. L. No. 107-71, § 101 (2002)
Department of Transportation (DOT)	49 U.S.C. § 5312	Pub. L. No. 105-178, § 3015 (1998)
Federal Aviation Administration (FAA)	49 U.S.C. § 106(l)	Pub L. No. 104-264, § 226 (1996)
National Aeronautics and Space Administration (NASA)	51 U.S.C. § 20113(e)	Pub. L. No. 85-568, § 203(c) (1958)

Sources: GAO analysis of U.S. code and public laws. | GAO-16-209

[a]As of September 30, 2015.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

John Neumann, (202) 512-3841 or neumannj@gao.gov

Staff Acknowledgments

In addition to the individual named above, Janet Frisch (Assistant Director), Dawn Bidne, Richard Burkard, Greg Campbell, Heather Dowey, Katherine Killebrew, and Shana Wallace 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 GAO's website (http://www.gao.gov). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to http://www.gao.gov and select "E-mail Updates."

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, http://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 E-mail Updates.
Listen to our Podcasts and read The Watchblog.
Visit GAO on the web at www.gao.gov.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Website: http://www.gao.gov/fraudnet/fraudnet.htm
E-mail: fraudnet@gao.gov
Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Katherine Siggerud, Managing Director, siggerudk@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

Please Print on Recycled Paper.